Jim Kastaver

Interstate Power and Light Company (an Alliant Energy company) comments on Item 14 on the 17 Feb 2009 Environmental Protection Commission agenda: Notice of Intended Action: Chapters 23, 25 and 34: Air Quality Program Rules – Rescission of vacated CAMR regulations and addition of new mercury monitoring provisions.

1. Interstate Power and Light Company (IPL) currently has 8 mercury CEMS monitors installed and it is our intent to continue operating and maintaining these monitors even though the federal CAMR rules have been vacated. In addition, we have 11 units that would have been classified as Low Mass Emitters (LME) under CAMR.

2. IPL prefers the proposed first Notice of Intended Action which simply removes the federal CAMR provisions from the state's administrative rules with no additional mercury monitoring requirements.

3. IPL believes the second potential Notice of intended Action will result in significant additional costs, but provide no real additional information on mercury emissions. Our concerns include:

   - Accomplishing quarterly coal sampling for mercury per ASTM D2234-76 would appear to require automatic sampling equipment (which currently is not installed at most units); hence while the sampling analysis costs may be modest, the installation of this new equipment would make this option very expensive and would require a substantial amount of time to design and construct.

   - The alternative option of quarterly stack testing for mercury is equally expensive; stack tests for a given unit will cost approximately $10,000 per quarter; $40,000 per year.

   - The proposed rule would exempt LME units if the affected source had previously submitted a request to EPA to be designated as LME under CAMR and IDNR concurred with this classification. However, the documentation for classification as an LME under CAMR was not assembled and forwarded to EPA due to the vacatur of CAMR in August 2008; hence no "requests to EPA' are available for IDNR review. So this section would need to be rewritten accordingly.

Jon Kallen

MidAmerican ENERGY
OBSESSIVELY, RELENTLESSLY AT YOUR SERVICE.

Testimony of MidAmerican Energy Company

Before the
Iowa Environmental Protection Commission
February 17, 2009

Rescission of the vacated Clean Air Mercury Rule from the Iowa Administrative Code

- MidAmerican Energy Company continues to encourage the Environmental Protection Commission to ***rescind*** the vacated Clean Air Mercury Rule (CAMR) provisions from the Iowa administrative rules by amending 567 IAC Chapters 23, 25, and 34.

- Continued compliance with the vacated CAMR is not possible and places both regulated entities and the Iowa DNR at risk of third party enforcement actions.

- Imposing these current obligations on MidAmerican facilities would result in the inability to achieve compliance through no fault or negligence on the part of MidAmerican.

- MidAmerican believes it is necessary and appropriate to remove from the state rules all of the CAMR regulations for the following reasons:

    - The U.S. Court of Appeals for the District of Columbia Circuit has original jurisdiction over appeals from federal agency rules, including those promulgated by the U.S. Environmental Protection Agency. The court's rulings vacating the CAMR are currently on appeal but have not been stayed. Therefore, the CAMR can not be implemented by the EPA, by the state of Iowa, or by any other state.

    - Mercury monitors are in place for all of MidAmerican's coal units. However, the monitors have not been certified (RATA) to collect valid compliance data. **These monitors can not be certified because there is no approved standard by which to certify the mercury monitors (NIST traceability).** *In addition, via letter dated June 19, 2008, the DNR communicated to regulated entities that as a result of the CAMR vacature, the January 1, 2009 certification requirement is no longer in place. Further, the DNR granted regulated entities an official six month variance on December 28, 2008.*

- The accuracy of the mercury monitoring systems in a utility stack emissions measurement setting has considerable room for improvement. MidAmerican's experience has shown that significant differences exist between the Method 30B measurements (sorbent trap) and the mercury continuous emission monitor (CEMS). **The CEMS results are erratic and do not line up with actual Method 30B test results**. Large unexplained swings in the measured stack mercury concentrations have been observed.

    - The attached **Table** from mercury optimization testing conducted at the Walter Scott Energy Center Unit 4 highlights the lack of accuracy in mercury monitoring.

        - This **Table** shows that with increased activated carbon injection rates, there was a larger gap in the values recorded under Method 30B as compared to the average CEMS data values.

        - Also note that this mercury optimization testing registered negative mercury CEMS values with the increased activated carbon injection rates. This demonstrates the difficulty in measuring mercury in extremely low concentrations.

- The DNR has alternatively proposed a Notice of Intended Action to remove the CAMR provisions from the IAC ***while continuing to require CAMR-affected Electrical Generating Units (EGUs) to conduct quarterly coal sampling analysis or stack testing.***

- MidAmerican is not supportive of these additional mercury monitoring requirements. MidAmerican submits that it is not necessary to prescribe a short-term, costly, and extensive monitoring program at the state level when a federal program will likely be developed in the near-term. In fact, on February 6, 2009, the EPA rescinded its writ of certiorari before the Supreme Court regarding CAMR and stated that it will begin a rulemaking under section 112 of the Clean Air Act, to develop a mercury maximum achievable control technology (MACT) standard. (see attached quotes from EPA Administrator Lisa Jackson).

- MidAmerican further submits that we are already required to and continue to record and report mercury emissions under the annual emissions inventory for facilities subject to the Title V Air Operating Permit program.

- In closing, MidAmerican requests that the EPC adopt DNR's proposed Notice of Intended Action to rescind the vacated CAMR provisions as currently reflected in the Iowa regulations at 567 IAC 23.1(2)(z), 23.1(4), 23.1(5)(d), 25.3, and 34.2 through 34.308, including applicable tables, and all other references to requirements originating under CAMR. This notice of intended action does not require mercury emissions monitoring.

February 16, 2009

Petroleum Marketers and Convenience Stores of Iowa
Jeff Hove, Vice President
10430 New York Ave, Ste F
Urbandale, Iowa 50322

Re: **Comments for Rule Amendment to 567 IAC Ch. 135/Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks**

To: Environmental Protection Commission

PMCI represents 1000 businesses in the State of Iowa which are directly impacted by the proposed rule-making. We sincerely appreciate this opportunity to give public comment during these final steps in a rule-making that has been deliberated over for more than 2 years. We believe these rules have the ability to increase the protection of our environment and public health in a manner that does not have a negative impact on small businesses in Iowa.

Revisions to chapter 135 have been completed following extensive stakeholder meetings. The result of those meetings declared that a new risk based model was necessary in order to intelligently assess petroleum releases. All who were present during these meetings (including DNR staff) agreed that the new model would adequately assess leaking underground storage tank sites. All contaminant pathways, with one exception, were deemed to be fully and adequately assessed by the new model.

The DNR expressed concerns over the pumping action of public water supply wells and how the pumping (drawdown) would interact with surficial aquifer plumes. Because data did not exist, nor has there ever been a reported incident of a single LUST site impacting a PWSW, the stakeholder group agreed to create a method and funding source so that the DNR could study the potential impacts of a PWSW on a contaminant plume. This data would then be used to generate new rules if the data supported the need. It is noteworthy that such steps have never previously been taken by any industry in Iowa.

Unfortunately, the rule-making before you today goes well beyond the original plan to create intelligent rules and expands the stakeholders agreed to rules. The new language is unsupported, making the revised assessment model virtually obsolete before ever being put into use.

We urge the EPC to reconsider changes crafted in the rules today and believe that **ITEM 2** should read as follows:

"...if it is determined that the conditions for an individual pathway that has been classified as "no action required" no longer exists, ~~or~~ <u>and</u> the site presents an reasonable risk to a public water supply well,..."

By making this change to the proposed rule, you will be re-establishing the intent of the risk based revised model to the form in which all parties had previously agreed too. We believe that Iowa is making enormous strides forward in the protection of water supply wells and that many industries have come together to make sure this happens in a professional and scientific process. To change these rules

at this point only demonstrates a lack of desire for the EPC to work with industry in this and in future rule-makings.

Sincerely,

Jeff Hove
Vice President
Petroleum Marketers and Convenience Stores of Iowa

www.epiowa.org

Lisa Nissen
Iowa Department of Natural Resources
Des Moines, IA

RE: Chapter 134, Underground Storage Tank Licensing and Certification Programs.

Dear Ms. Nissen:

I am writing this letter on behalf of the Environmental Professionals of Iowa (EPI). The EPI is a professional organization that represents over 400 Groundwater Professionals throughout Iowa and the surrounding states. As representatives for this group, the board of EPI has voted to post the following comments on the proposed Notice of Intent to Amend the above regulations.

The EPI is deeply concerned with the proposed rule changes that the Iowa Department of Natural Resources (IDNR) is proposing. Primarily, Section 567-134.22(455B) Duty to report. This section states that it shall be the responsibility of the UST Professional to report suspected and confirmed releases to the department.

The EPI requests that this portion be stricken from the proposal and that the original requirement of reporting to the department remain the onus of the property owner. Changing this responsibility to the groundwater professional does not provide any additional benefit to the department, property owner, or public. Change of this rule will NOT change the property owners responsibility to report and will only require consultants/contractors to become potentially responsible parties (PRP's) if a dispute arises. We believe that this rule change is wrong and will place our membership's personnel and their companies at additional liability risk that is unwarranted.

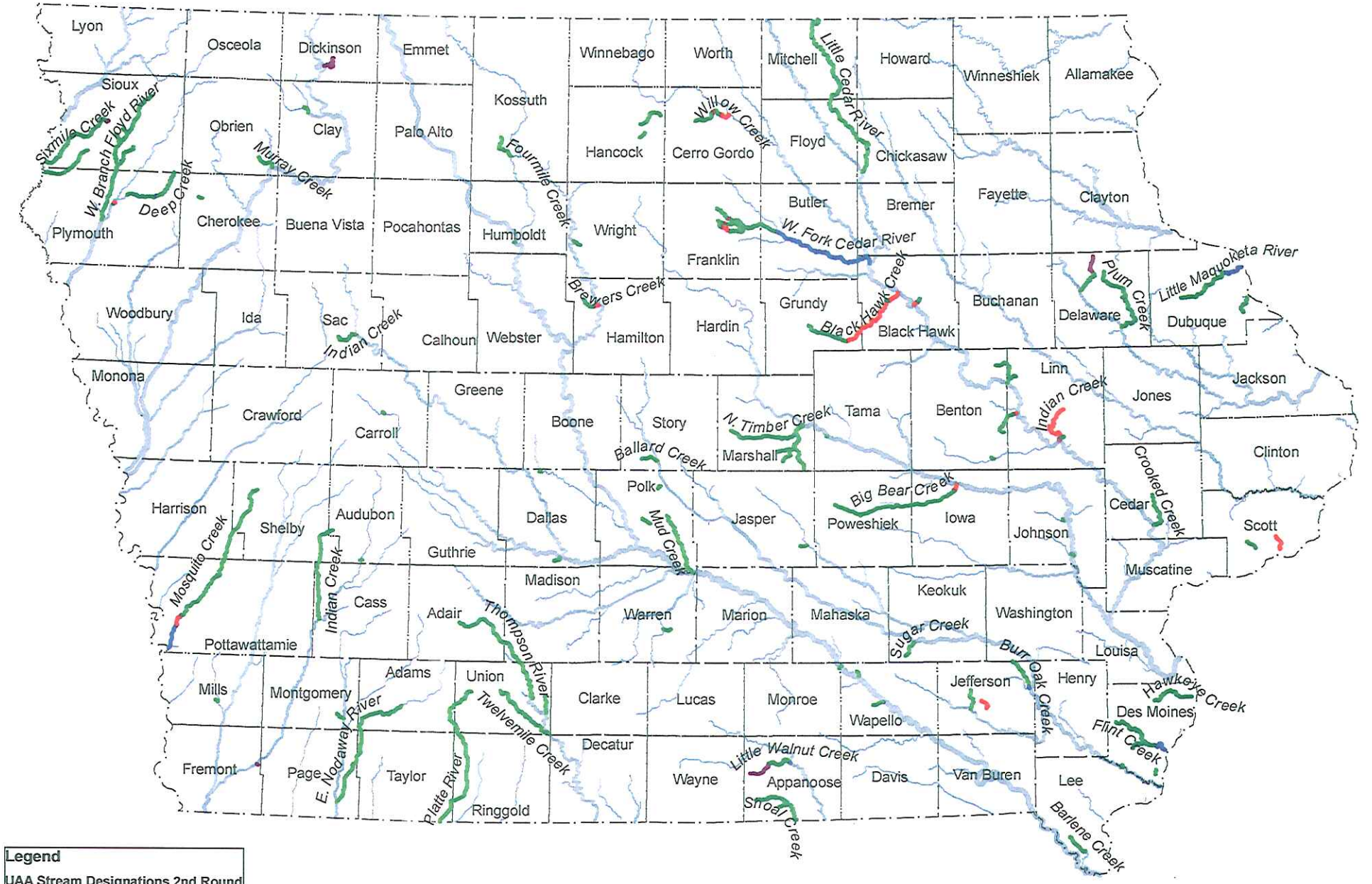
Sincerely,

S. Shipley

Steve Shipley
President
Environmental Professionals of Iowa

2009 UAA Designations (Round 2), DNR Proposal

Shannon Gretson



Legend

UAA Stream Designations 2nd Round

- No Recreational Use Designated
- A1: Fully Protected
- A2: Less Protected
- A3: Fully Protected

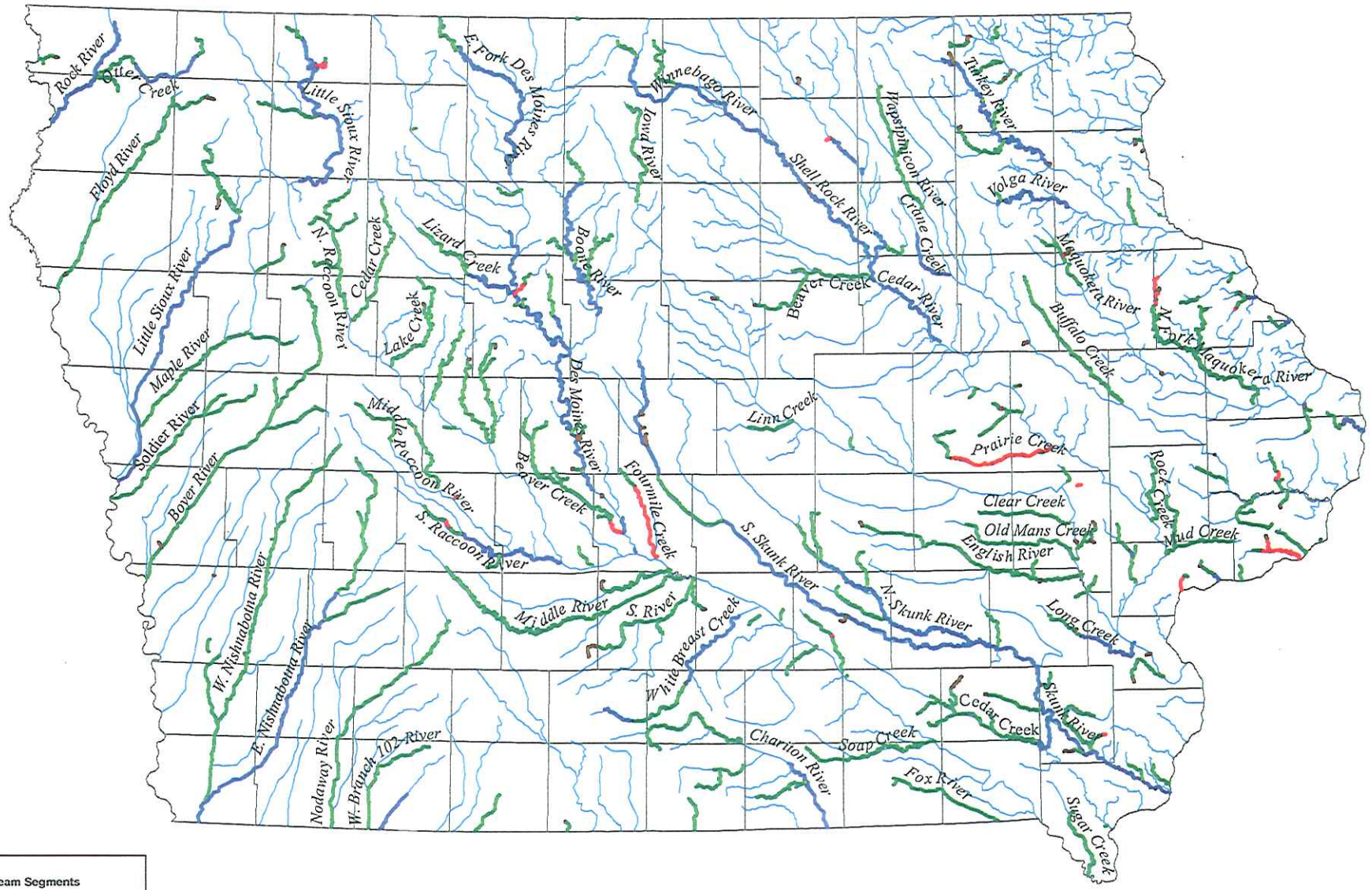
2/2009

0 12.5 25 50 75 100 Miles

Data Courtesy of Iowa Department of Natural Resources

Iowa Environmental Council

2007 UAA Designations (Round 1), Prior to DNR Changes



UAA Stream Segments

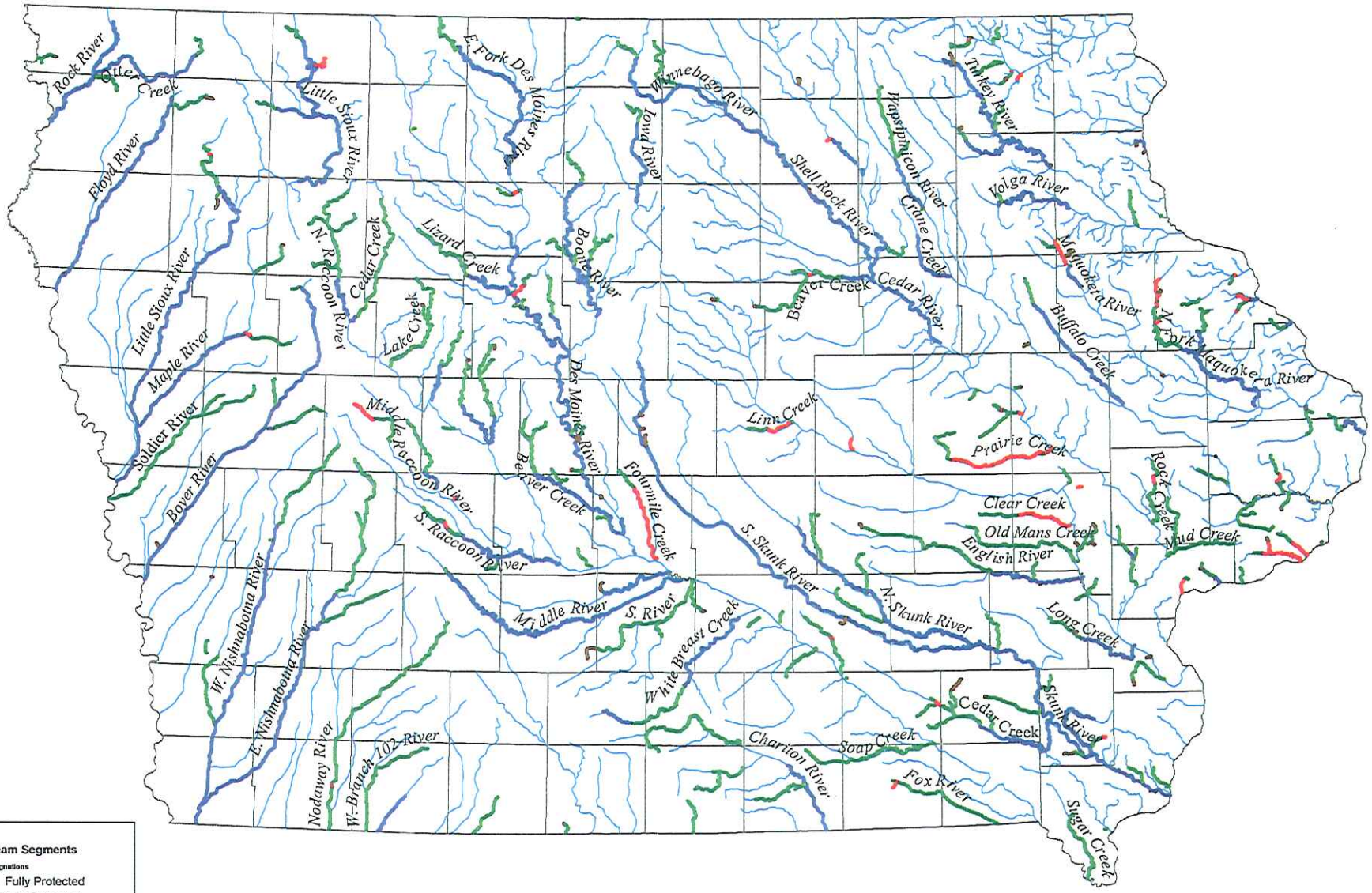
- A1: Fully Protected
- A2: Less Protected
- A3: Fully Protected
- No Recreation Protection

0 15 30 60 90 120 Miles

SIERRA CLUB FOUNDED 1892

Iowa Environmental Council

2007 UAA Designations (Round 1), Following Public Comments



UAA Stream Segments

New UAA Designations
- A1: Fully Protected
- A3: Fully Protected

DNR Recommended UAA Designations
- A1: Fully Protected
- A2: Less Protected
- A3: Fully Protected
- No Recreation Protection

0 15 30 60 90 120 Miles

SIERRA CLUB FOUNDED 1892

Iowa Environmental Council

Neila Seaman
Sierra Club, Iowa Chapter

#11. Batch 2 of the stream reclassifications

You will be asked today to approve a notice of intended action to reclassify 138 river and stream segments for recreation and aquatic life uses. Last spring, the EPC approved reclassification for 304 stream segments. The process was extremely time-consuming and required a meeting of its own. The DNR submitted the necessary documents to the Environmental Protection Agency for approval, but EPA has not yet approved all of the reclassifications from the first batch.

The Sierra Club is anxious to bring Iowa closer to compliance with the federal Clean Water Act. We believe that Iowa's rivers and streams not previously designated for aquatic life and recreational use should be protected for those uses. We appreciate the extensive work the DNR has done to do the use assessment analyses. However, we are concerned that moving forward with a new batch of reclassifications before the EPA signs off on the last batch would not be prudent. Therefore, I encourage you to delay approving the notice of intended action until the DNR receives final approval from the EPA.

02/16/09

SUBJECT: New Fees for Water Use
TO; EPC
FROM' Vincent Willey, Pike Ct. Whiting, Iowa 51063 712-455-2357

Enclosed is material for your review as I am trying to moderate proposed increase

Incl. 1 - original letter each permit holder received stating proposed increase of a permit from presently $25.00 to $350.00.
Annual fees (which we have never had) of $140.00 - $150.00

Incl. 2 - Shows my latest permit - notice expires in Sept. 23, 2018. Why shouldn't this contract be honored and new annual fees start in 2019.

Incl. 3 - Shows one of my permits (expiring in 2012) with highlighted area showing that I and all irrigation wells can only be used 6 months of each year. Our fees should be reduced for this reason only as municipalaties, businesses and counties are not restricted by so many months usage.

Incl. 4 - Paragraph 4 stating that we have, basically an unlimited amount of water. IDNR doesn't have to get involved in water disputes in western Iowa.

Incl. 5 - A statement of facts of irrigation water use.

Incl. 6 - Number of irrigation wells

SUMMATION

In the present economic times, to see this type of an increase is ludicrous. The present 10 year $25.00 fee to a proposed $350.00 seems extravagant to me. The annual fee of $140.00 - $170.00 of which we have never had an annual fee is beyond my belief. The IDNR backed down on hunting license fees, etc. This proposal should be mediated. Mr. Ault of IDNR admits 2/3/ of irrigation wells are inn Monona, Harrison and Woodbury counties, thus making it extremely unfair for us to bear the large percentage of the proposed funds they want to raise.

There are 2537 permits (DNR records) of these 1589 are for irrigation. Of these, there are 1378 wells for general farm crops and 211 for specialty crops. Well over 50% of the permitted wells are for irrigation and why should we have to be burdened by our 3 counties providing the biggest share of the $500,000.00 that DNR wants to raise when we are limited for only 6 months use and the very small amount of water irrigation wells use vs. the large amounts muncipalities use on an annual permit. Municipalities and business

Enclo 6

can pass the fee on to the public. We farmers have no way to set a price on our products. We have sell what the markets offer.

My county (Monona) needs the $1.00/acre annual fee for our County roads, bridges etc., NOT with DNR that admits the proposed rates are excessive in what is needed now, with the balance kept to earn interest when future fees might need to be increased.

At the public hearings in December, our hearing in Onawa (Monona Co.) had 51 at the hearing because of interest in western Iowa. Only 9 were present in Iowa City and 9 in Des Moines. Of these 65 people, 6 were supportive, 59 in opposition. Even with that large % against, the rules were to contninue.

Of the 14 stakeholders, western Iowa needed to be involved.

There neeeds to be a more equatable fee schedule. It appears my 3 irrigation well fees will be much more costly to me than many towns and businesses.

Respectfully

Vincent R. Willey
351 Pike Ct.
Whiting, Iowa 51063
Ph. 712-455-2357

DNR Seeks Public Comment: New Fees for Water Use & Storage Permits

What is the purpose of the rule revision?

During the last legislative session, the legislature authorized the Iowa Department of Natural Resources (DNR) to collect an annual fee from water use permit holders and fees for processing applications for new or modified water allocations. The total amount of the fees to be collected will be based on the DNR's reasonable cost of reviewing applications, issuing permits, ensuring compliance with the permit terms, and resolving water interference complaints. The complete Notice of Intended Action is in the November 5, 2008, Iowa Administrative Bulletin (pages 1137 – 1139), at this website: http://www.legis.state.ia.us/aspx/BulletinSupplement/bulletinListing.aspx.

How will the annual fee be determined?

Each permit holder will pay an estimated annual fee of $140 - $170. The proposed fee is a flat rate fee, which means every permit holder will pay the same amount each year. However, holders of storage permits and temporary registrations will be exempt from paying the annual fee. Each year, the Environmental Protection Commission will set the amount of the fee, which is expected to vary slightly from year to year since it is based on the number of active permits.

How much are the application fees?

The application fee for a new or modified water use permit will be $350. The application fee for water storage (permitted for the life of the pond or surface water reservoir) or minor non-recurring use (permitted for up to one year) will be $75. The application fee for an aquifer storage and recovery permit will be $700.

When will the fees become effective?

The fees become effective July 1, 2009. The first annual fee payments will be due December 1, 2009.

Public Comment Period

Written comments are being accepted through **December 12, 2008**. Send them via e-mail to diane.moles@dnr.iowa.gov, via fax to (515)725-0348, or via postal mail to the following address:

Diane Moles
IDNR – Water Supply Sections
401 SW 7th Street, Suite M
Des Moines, IA 50309-4611

Three hearings are scheduled to take written or oral comments at the following times and locations:

- December 3rd at 9:00 a.m. in Kelly Hall, Onawa Community Center, 320 Tenth Street, Onawa
- December 5th at 10:00 a.m. in the Iowa City Public Library, 123 S. Linn Street, Iowa City
  - Parking is available in ramp at the corner of Linn and Burlington Streets.
- December 11th at 10:00 a.m. in the Wallace State Office Bldg. Auditorium, 502 E. 9th ST, Des Moines
  - Parking is available in the ramp west of the Wallace Building or in the lot east of the Capitol.

Any comment must include the commenter's name. If the commenter would like to receive the Responsiveness Summary, the commenter's e-mail or mailing address is also required.

DNR

WATER SUPPLY ENGINEERING SECTION
HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER AND
MANAGING WATER RESOURCES FOR THE BENEFIT OF ALL IOWANS

Incl. 1

IOWA DEPARTMENT OF NATURAL RESOURCES

WATER USE PERMIT

Permit issued to:

Vincent Willey
351 Pike
Whiting, IA 51063

Permit Number: 9398

Effective: September 24, 2008

Expires: September 23, 2018

The permittee is authorized to:

withdraw water from one existing Missouri River alluvial aquifer well, 16 inches in diameter and about 106 feet deep, on land generally described as the W ½ of the S ½ of the SE ¼ of Section 16, T84N, R46W, Monona County, Iowa, in the maximum quantity of 66.0 acre-feet per year at a maximum rate of 1000.0 gallons per minute, all withdrawals being throughout each year for general farm crop irrigation (corn and soybeans) on said land and property.

This authorization to withdraw water has been granted pursuant to the provisions of Part 4 of Division III of Chapter 455B, Code of Iowa, and Chapters 50, 51, and 52 of Part 567, Iowa Administrative Code, and is further subject to the general permit conditions within this permit.

Conditions of this permit may be appealed as provided in rule 567--50.9, Iowa Administrative Code. Appeal must be in writing and must be received at the Department of Natural Resources; Water Supply Engineering Section; 401 SW 7th St., Suite M; Des Moines, Iowa 50309-4611 within thirty days of the date of the certification of the mailing of the permit.

FOR THE DIRECTOR:

By: Michael K. Anderson, P.E. Date Executed: Sept. 24, 2008
(mka)

c: Field Office No. 4
File CON 3-9, # ____

Incl. 2

IOWA DEPARTMENT OF NATURAL RESOURCES

WATER USE PERMIT

Permit issued to:

Vincent R. Willey
351 Pike Court
Whiting, IA 51063

Permit Number: 3162-R3

Effective: 6/21/2002

Expires: 6/20/2012

The Permittee is authorized to:

withdraw water from one existing Missouri River alluvial well, approximately 120 feet deep, located near the center of the NE ¼ of Section 21, T84N, R46W, Monona County, Iowa, in the maximum quantity of 240 acre-feet per year at a maximum rate of 1,500 gallons per minute during the period April 1 to September 30 of each year for irrigation of up to 160 acres of general farm crops such as corn and soybeans on land generally described as the NE ¼ of Section 21, T84N, R46W, Monona County, Iowa.

This authorization to withdraw water has been granted pursuant to the provisions of Part 4 of Division III of Chapter 455B, Code of Iowa, and Chapters 50, 51, and 52 of Part 567, Iowa Administrative Code, and is further subject to the general permit conditions within this permit.

Conditions of this permit may be appealed as provided in rule 567--50.9, Iowa Administrative Code. Appeal must be in writing and must be received at the Iowa Department of Natural Resources, EPD/Water Supply Section, 401 SW 7th Street, Suite M, Des Moines, Iowa 50309-4611 within thirty days of the date of the certification of the mailing of the permit.

FOR THE DIRECTOR:

By: Michael K. Anderson, P.E. Date Executed: 6/21/2002

cc: Field Office No. 4 – Atlantic
Permit File #3162

CERTIFICATE OF MAILING

On the date shown below, a copy of the foregoing permit was mailed to the Permittee and to each person entitled to receive a copy as provided by rule 567--50.8(2), Iowa Administrative Code.

June 25, 2002

incl. 3

IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT SUMMARY REPORT

Applicant: Vincent Willey
351 Pike
Whiting, IA 51063

Application Log No.: 24,177

1. Applicant, Vincent Willey, Log Number 24,177, requests one new agricultural-type water use permit authorizing withdrawals of from one existing Missouri River alluvial aquifer well, 16 inches in diameter and about 106 feet deep, on land generally described as the W ½ of the S ½ of the SE ¼ of Section 16, T84N, R46W, Monona County, Iowa, in the maximum quantity of 66.0 acre-feet per year at a maximum rate of 1000.0 gallons per minute, all withdrawals being throughout each year for general farm crop irrigation (corn and soybeans) on said land and property.

2. Applicant's farm is located in the western portion of Monona County, in Lincoln Township, and about 3.5 miles south and west of the City of Whiting. Applicant will use center-pivot type irrigation equipment to irrigate about 66 acres of general crops on an 80-acre farm.

3. An irrigation of row crops in a field on land which includes soils more erodible than Capability Subclass IIe as defined by the United States Department of Agriculture, Natural Resources Conservation Service (NRCS), or slopes greater than 6 percent where a modern NRCS Soil Survey is not available, shall submit a soil conservation plan prepared with the assistance of the NRCS for the field land in which row-crop irrigation is proposed. The plan shall be accompanied by the Applicant's written explanation of how operation of the proposed irrigation system will be compatible with the conservation plan.

4. According to departmental records, there are many downstream private water users and there are many irrigators using the area for agricultural irrigation. These users and any future users of water from the alluvial system fo the Missouri River are amply protected from damage meaning impacts to their withdrawal will be negligible due to the historical productivity of this Missouri River alluvial aquifer. In any case, this type of topography, characterized by significantly productive sands and gravel's, wherein the neighboring user/s are each located at a distance from the Applicant, precludes the possibility of adverse impacts resulting from the Applicant's proposed use of water.

Incl. 4

January 20, 2009

The irrigators of Iowa object to being discriminated against. Proposed annual fees for irrigation well permit is in the range of $140.00 to $170.00. The fee for municipalities using up to forty million (40,000,000) gallons per day would be the same.

A typical center pivot unit on a quarter section (160 acres) would use four point two (4.2) million gallons for each inch of water applied to growing crop. Last ten (10) year average application has been three point five (3.5) inches of water. This equates to one third (1/3) of Des Moines daily usage for the entire crop season.

It should be realized that all irrigation water (except seven per cent evaporation) returns directly to the aquifer from which it is drawn. In contrast thirty to forty (30-40) per cent of municipal use is consumptive. In other words it is transported out of area supporting aquifer.

Once again agriculture is expected to subsidize urban areas.

Encl. 5

From: "Moles, Diane [DNR]" <Diane.Moles@dnr.iowa.gov>
Subject: **Water Use Permit Fee Rulemaking to be presented at February 17th EPC meeting**
Date: February 4, 2009 11:15:30 AM CST
To: "Moles, Diane [DNR]" <Diane.Moles@dnr.iowa.gov>

This e-mail is in regards to the Water Use Permit Fee Rulemaking that was proposed last fall. The Responsiveness Summary for the Water Use Permit Fee Rulemaking, the agenda brief, the adopted & filed rulemaking, and the agenda for the February Environmental Protection Commission's meeting were posted this morning on the DNR's website (http://www.iowadnr.gov/).

These are the links to the documents:
Agenda: http://www.iowadnr.gov/epc/09feb17a.html
Agenda Item 6 (includes the agenda brief, the adopted & filed rule, and the Responsiveness Summary): http://www.iowadnr.gov/epc/09feb/6.pdf
EPC webpage: http://www.iowadnr.gov/epc/index.html

After considering all comments received, the department is proceeding with the rulemaking as it was originally proposed and is presenting it at the February EPC meeting.

The EPC meeting is open to the public. The meeting will begin at 10 a.m. on Tuesday, February 17th, at the DNR's Air Quality Building, 7900 Hickman Road, Urbandale, Iowa, and is open to the public to participate. If you plan to attend the meeting and wish to address the EPC, please complete a Public Comment Card upon arrival at the meeting to obtain an opportunity to address the Commission and share your concern. The Chair requests that public comments be limited to 3-5 minutes in length.

Incl. 6

IOWA DEPARTMENT OF NATURAL RESOURCES

WATER USE PERMIT

Permit issued to:

Vincent Willey
351 Pike Ct
Whiting, IA 51063-1014

Permit Number: 9128

Effective: 12/3/2005

Expires: 12/2/2015

The Permittee is authorized to:

withdraw water from one existing Missouri River alluvial well, approximately 100 feet deep, located in the NW ¼ of the SE ¼ of Section 9, T84N, R46W, Monona County, Iowa, in the maximum quantity of 80 acre-feet per year at a maximum rate of 2,000 gallons per minute during the period April 1 through September 30 of each year for irrigation of up to 80 acres of general farm crops such as corn and soybeans on land generally described as the W ½ of the SE ¼ of Section 9, T84N, R46W, Monona County, Iowa.

This authorization to withdraw water has been granted pursuant to the provisions of Part 4 of Division III of Chapter 455B, Code of Iowa, and Chapters 50, 51, and 52 of Part 567, Iowa Administrative Code, and is further subject to the general permit conditions within this permit.

Conditions of this permit may be appealed as provided in rule 567--50.9, Iowa Administrative Code. Appeal must be in writing and must be received at the Iowa Department of Natural Resources, Water Supply Engineering Section, 401 SW 7th Street, Suite M, Des Moines, Iowa 50309-4611 within thirty days of the date of the certification of the mailing of the permit.

FOR THE DIRECTOR:

By: Michael K. Anderson, P.E. Date Executed: 1/12/2007

cc: Ken Carlson - Onawa
Field Office No. 4 – Atlantic
Permit File

CERTIFICATE OF MAILING

On the date shown below, a copy of the foregoing permit was mailed to the Permittee and to each person entitled to receive a copy as provided by rule 567--50.8(2), Iowa Administrative Code.

01-16-07

Incl. 7

Nissen, Lisa [DNR]

From: Darren Binning [dbinning@senecaco.com]
Sent: Monday, February 16, 2009 4:58 PM
To: Nissen, Lisa [DNR]
Subject: Amendments to Ch 134 UST Licensing and Certification Programs

Regarding: Amendments to Ch 134 UST Licensing and Certification Programs.

EPC Commissioners,

As a CGP I do not feel it is our duty to report to the state regulatory agency any "actual or potential release". I do however believe it is our responsibility to inform our clientele of any such case and to discuss their responsibilities as a business owner to report releases (not only to the DNR but to their insurance carrier as well). In many cases we do report, but only per our client's request. This rule would affect CGP's, PE's, Licensed Installers, and possibly other's license status. We are not the regulatory body, we are not inspectors, we are however hired to provide a very specific service for our clientele and give them advice; not to be a watchdog for the regulatory agency.

What determines a release? What determines a potential release? Will every business owner be held to the same standard? I don't see how they could. Businesses hire many different consulting firms of which all will interpret the rules differently. Licensed installers will do the same and so will service technicians. For anyone working in this industry whether a CGP or PE or Licensed Installer one must consider the potential client backlash in the event the station owner pays a co pay ($10,000) out of pocket for something that was mis-reported and resulted in a required T2 assessment. Please consider these consequences for licensed professionals and their companies.

Regards,

Darren F. Binning
Division Manager - Des Moines
Seneca Environmental Services, Inc.
dbinning@senecaco.com
515-261-7705 **Phone**
515-262-2469 **Fax**
515-778-7066 **Mobile**
vCard
www.senecaco.com

Nissen, Lisa [DNR]

From: Tom Draur [tdraur@barkerlemar.com]
Sent: Monday, February 16, 2009 6:13 PM
To: Nissen, Lisa [DNR]
Subject: Comment for Feb 17 EPC meeting

To the Environmental Protection Commission:

I am writing to you regarding Item 10 on your February meeting agenda, Chapter 134, "Underground Storage Tank Licensing and Certification Programs," Iowa Administrative Code. I have been an attendee at several stakeholder meetings regarding the proposed change and have offered comments at those meetings. I have a few comments regarding the proposed rule that I do not believe have been given sufficient evaluation by the Department.

The DNR UST Section appears to be of the opinion that releases are going unreported. When we come across a likely release situation, it is our practice to inform our clients of the situation and the Department's reporting criteria, and advise them to consult their environmental legal counsel. The duty to report lies with the land owner; it is, after all, their land. In the proposed rule, this obligation is shifted to individuals providing services, usually for a fee, to those same land owners, so that the Department can be more assured that potential soil and groundwater contamination issues are being reported to the Department. It is my suspicion that this will not end up to be the case. Even with complete adherence to this rule, what is the standard by which all observers will report? Individual judgements vary widely, and without a standard to reference, reporting is likely to vary widely. Is a single failed continuous statistical leak detection (CSLD – 0.2 gallons per hour threshold) failure a suspected release? Is failing to have a valid CSLD test for 2 months a suspected release? Is having a customer overfill a gas tank over cracked pavement? How about a tanker driver losing a drop of fuel at the edge of a containment sump, between the sump top edge and the manway skirt containing the fill port and sump? An overfill alarm? Fuel released to a contained dispenser sump during a filter change?

There may also be some parties that disregard this duty; as a professional engineer, I cannot.

If the Department is having issues with owners reporting releases, it may more directly benefit the Department to pursue those owners, or remind those owners of their duty to report releases. There may also be a perceived conflict of interest having those of us that derive work from such leaks reporting those leaks.

There is a cost to be borne by the property owners under the proposed rule. Each time the Department requires a site check to be done for a suspected release, the owner must spend a few thousand dollars to either find no proof of a release, or to confirm that a release has occurred. Without a standard to judge by, there may be a significant increase in the number of reports, which appears to be the Department's goal; this translates into an increase in the financial burden to Iowa's businesses. A standard for a suspected release would set a bar by which one may judge the risks and provide a mechanism for these businesses to plan their environmental expenses.

THOMAS E. DRAUR, PE | PRINCIPAL ENGINEER
BARKER LEMAR ENGINEERING CONSULTANTS
515.327.4918 | 515-250-3295 [m] | 515.256.0152 [f] | barkerlemar.com

Nissen, Lisa [DNR]

From: Jeff Hove [jeff@pmcofiowa.com]
Sent: Tuesday, February 17, 2009 8:19 AM
To: Nissen, Lisa [DNR]
Subject: FW: EPC comments Ch. 134

Sorry. I think this was sent to me accidently.

From: anita maher lewis [mailto:anita.maherlewis@gmail.com]
Sent: Monday, February 16, 2009 3:31 PM
To: Jeff Hove
Subject: EPC comments

I'd like to provide comments on the proposed Ch. 134 rulemaking efforts, specifically on the "duty to report" portion.

We do report verified releases to the agency in the reports we provide to our clients and to them.

I have several professional concerns with this requirement but two main ones:

1) department staff expressed several times in the stakeholder meetings that one of the reasons they were inserting the "duty to report" requirement was because they felt owner/operators were not reporting releases. This is a departmental enforcement issue to resolve, not an issue they transfer to the backs of groundwater professionals. We are not policing agents for the department or our clients.

2) the concept of suspected release. what exactly is a suspected release? it will be defined differently by each individual, professional company and client. And this will be for those professionals in the field--I imagine it will also be defined differently by those at the department level also, which will lead to even more complications. Also, a personal concern is how I will get liability coverage for this new provision, with such a broad range to cover. While the department referred to other states using the "suspected" level of reporting, a request was made to find out their success, the request was never honored. Additionally, while other states do have provisions for this in their rules, how do their rules compare to Iowa's? How do their tank program's compare to Iowa's? Are we making real comparison's?

Anita Maher-Lewis
Iowa CGWP
AML Consulting
Ames, IA

IPECA
IOWA PETROLEUM EQUIPMENT CONTRACTORS ASSOCIATION

2007-2008 OFFICERS

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MEMBERSHIP BENEFITS

UNIFIED VOICE: Provide a unified voice (lobby group) for Iowa contractors to become more involved in what is happening in the industry. We provide a forum for problem solving and discussion with other members of the tank and piping industry. To act as liaison for Federal, State and Municipal authorities to promote and develop safe and economically feasible regulatory standards for petroleum equipment systems within the State of Iowa.

EDUCATION: To develop continuing education training for the contractor and operator members in the petroleum industry to enhance public awareness of the safe operation and maintenance of a petroleum equipment systems.

ENVIRONENTAL PRESERVATION: To monitor and develop acceptable industry standards in relation to safeguarding of the environment from petroleum based contamination.

February 16, 2009

To Whom It May Concern:

RE: Chapter 134 Part 17 revision

IPECA has reviewed the revisions from IDNR that Tom Collins had e-mailed out November 11th 2008. Tom wanted a response back then with a 2 day notice and there was no way I could get enough input from IPECA members at that time. As of now IPECA does not agree with "Duty to Report" IPECA requests that this be discussed in further detail with the IDNR and IPECA members. IPECA is going to have a meeting with its members this spring. Were hoping that IDNR can alot sometime to discuss this and other issues. If we must have a meeting sooner we can try to get this done. Sorry for being vague on this but most members have read the revisions of chapter 134 Part 17 and only have an issue with the "duty to Report"
Regards,

Iowa Petroleum Equipment Contractors Association.

Art Wentworth- President

Feb 10, 2009

To E P C Member,

I would like to comment on the proposed rules concerning surface applying manure on frozen or snow covered ground.

My family and I have a dairy farm that is permitted for 830 head of dairy cattle. Most of the manure can be stored in an earthen storage basin. We also have a manure separator to take the solids out of the liquid manure. We erected a building to store the manure solids in 2007 at a cost of $83,000. We also have a special needs barn that has a bedding pack that we clean out every 2 weeks. That manure a is very stable product that dosen't run off in snow melt. We are in an area rhat has an average slope of 2.5% with nothing greater than 7% and that portion never gets manure applied in the winter. We do not winter apply any manure where water might run during the spring thaw.

I do not think that it is fair that the DNR makes rules that put a hardship on my operation when we are very conscientious stewards of the land and water. We have spent hundreds of thousands of dollars to keep the water clean and following all the rules.

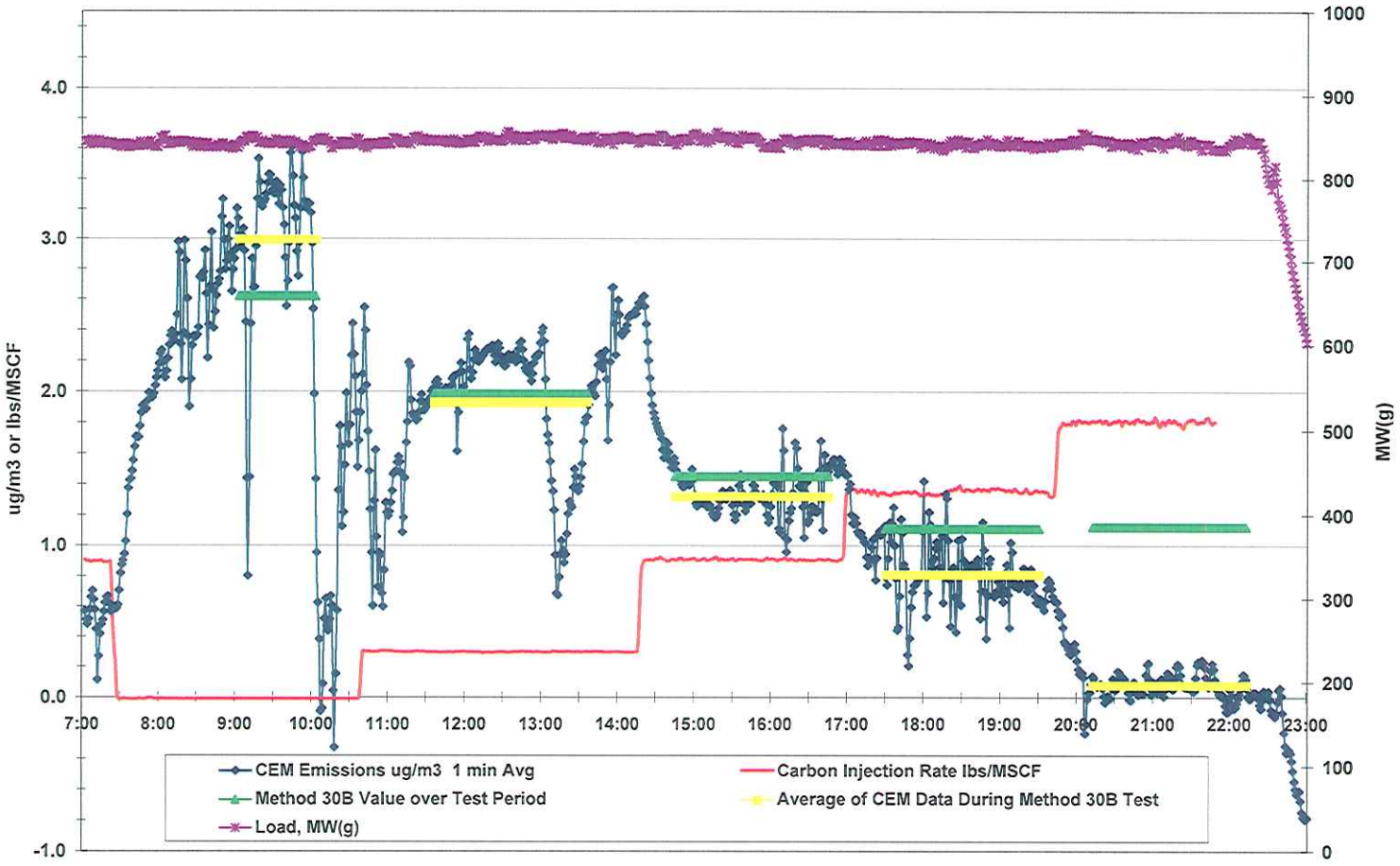
I would ask that you NOT adopt these new rules restricting surface applying manure on frozen or snow covered ground as they are currently written.

Sincerely,

Douglas Kleiss
Pres. HMCI Inc.
cellph. 641-330-7174

HMCI INC.
2570 QUINLAN AVE.
FREDERICKSBURG, IA.50630

Figure 1 - Mercury Optimization Testing for WSEC Unit 4 on 12/20/2007
Control Parameters and Results



Daily Environment Report™

Source: Daily Environment Report: All Issues > 2009 > February > 02/09/2009 > News > Air Pollution: EPA to Issue Mercury Rules for Power Plants, Moves to Withdraw Supreme Court Petition

24 DEN A-1

Air Pollution

EPA to Issue Mercury Rules for Power Plants, Moves to Withdraw Supreme Court Petition

The Environmental Protection Agency said Feb. 6 it intends to develop technology-based standards to control mercury emissions from power plants, and the government moved to dismiss its petition before the U.S. Supreme Court that sought to reinstate an emissions trading system for those plants (*EPA v. New Jersey,* U.S., No. 08-512, *motion to dismiss filed* 2/6/09).

EPA Administrator Lisa Jackson said in remarks to the Good Jobs, Green Jobs conference in Washington, D.C., "President Obama's EPA does indeed intend to promulgate mercury regulations under Section 112 of the Clean Air Act."

A rule to establish technology-based standards under Section 112 for mercury emissions from power plants would reflect a markedly different approach to power plant pollution compared with the Bush administration.

The Clean Air Mercury Rule, issued in 2005, set up an emissions trading system to reduce mercury emissions after EPA had rejected the idea of using Section 112. Under Section 112, the rules would require that each power plant comply with emissions limits set by EPA, primarily by installing state-of-the art pollution controls.

Under a trading system, power plants could choose to install controls or purchase emissions allowances if they found the allowances to be more cost-effective. The allowances would come from plants that were able to more easily reduce emissions.

Trading Rule Overturned by Court

The emissions trading rule was unanimously overturned in February 2008 by a three-judge panel of the U.S. Court of Appeals for the District of Columbia Circuit, which said EPA ignored the "plain text" of the Clean Air Act and must set strict limits on mercury emissions from all coal-fired power plants under Section 112 (*New Jersey v. EPA,* 65 ERC 1993 (D.C. Cir. 2008); 27 DEN A-6, 2/11/08).

The D.C. Circuit held that EPA improperly removed electric generating units from the list of hazardous emissions sources when promulgating the rule. Coal-fired power plants are the largest U.S. source of mercury emissions, with 48 tons per year accounting for 40 percent of all emissions.

Acting on EPA's behalf, the Justice Department in October 2008 petitioned the Supreme Court to review the D.C. Circuit decision (203 DEN A-1, 10/21/08).

But Acting Solicitor General Edwin Kneedler Feb. 6 filed a motion with the Supreme Court to dismiss the petition for review. "EPA has decided, consistent with the court of appeals' ruling, to develop appropriate standards to regulate power plant emissions under [U.S. Code] Section 7412," the motion said.

U.S. Code Section 7412 is the same as Clean Air Act Section 112, under which EPA is required to limit emissions of hazardous air pollutants, including mercury.

Rulemaking Process Begins

Jackson told reporters at the green jobs conference that EPA is now beginning the work of drawing up mercury emissions limits for power plants.

"Now we are going to have to get to work and start a rulemaking process, this time hopefully one that

will stick throughout the legal system," Jackson said. "The court said we have to regulate under Section 112, and we'll begin a rulemaking to do just that."

EPA said in 2005 that the emissions trading rule would reduce mercury emissions from power plants by about 50 percent by 2020. The agency said the rule would allow mercury emissions reductions to occur at the power plants where they would be the easiest and least costly to obtain.

The states that sued EPA resulting in the D.C. Circuit decision are seeking EPA regulations that would apply uniformly to all coal-fired power plants. These regulations could result in mercury emissions limits that reduce emissions by 90 percent from power plants.

The Utility Air Regulatory Group (UARG), representing a group of utilities, joined the government in seeking Supreme Court review.

Utilities to Continue Challenge

UARG indicated it will continue to challenge the ruling.

Lee Zeugin, an attorney with Hunton & Williams representing UARG, told BNA Feb. 6, "We are not withdrawing our petition and will be filing a reply in support of our petition today."

A group of states, led by New Jersey, where Jackson was until recently head of the Department of Environmental Quality, filed a response to EPA with the Supreme Court Jan. 21, saying that EPA and UARG had not made a compelling argument to reconsider the D.C. Circuit decision (13 DEN A-4, 1/23/09).

New Jersey was the lead plaintiff in the case before the D.C. Circuit and the Supreme Court.

Jeffrey Holmstead, the EPA assistant administrator for air and radiation under President Bush who oversaw the creation of the Clean Air Mercury Rule, and now the head of the Environmental Strategies Group at Bracewell & Giuliani, said in a statement, "It is not surprising that the new Administration has decided to develop facility-specific standards to reduce mercury emissions from power plants.

"The unfortunate thing is that this approach will be less effective, and more expensive, than a well-designed trading program. If the facility-specific approach is upheld in court, we'll all be paying much more than necessary to address mercury emissions from power plants."

Clean Air Watch President Frank O'Donnell told BNA, "It's terrific news. It shows the Obama administration—unlike its predecessor—won't be a pawn of the electric power industry."

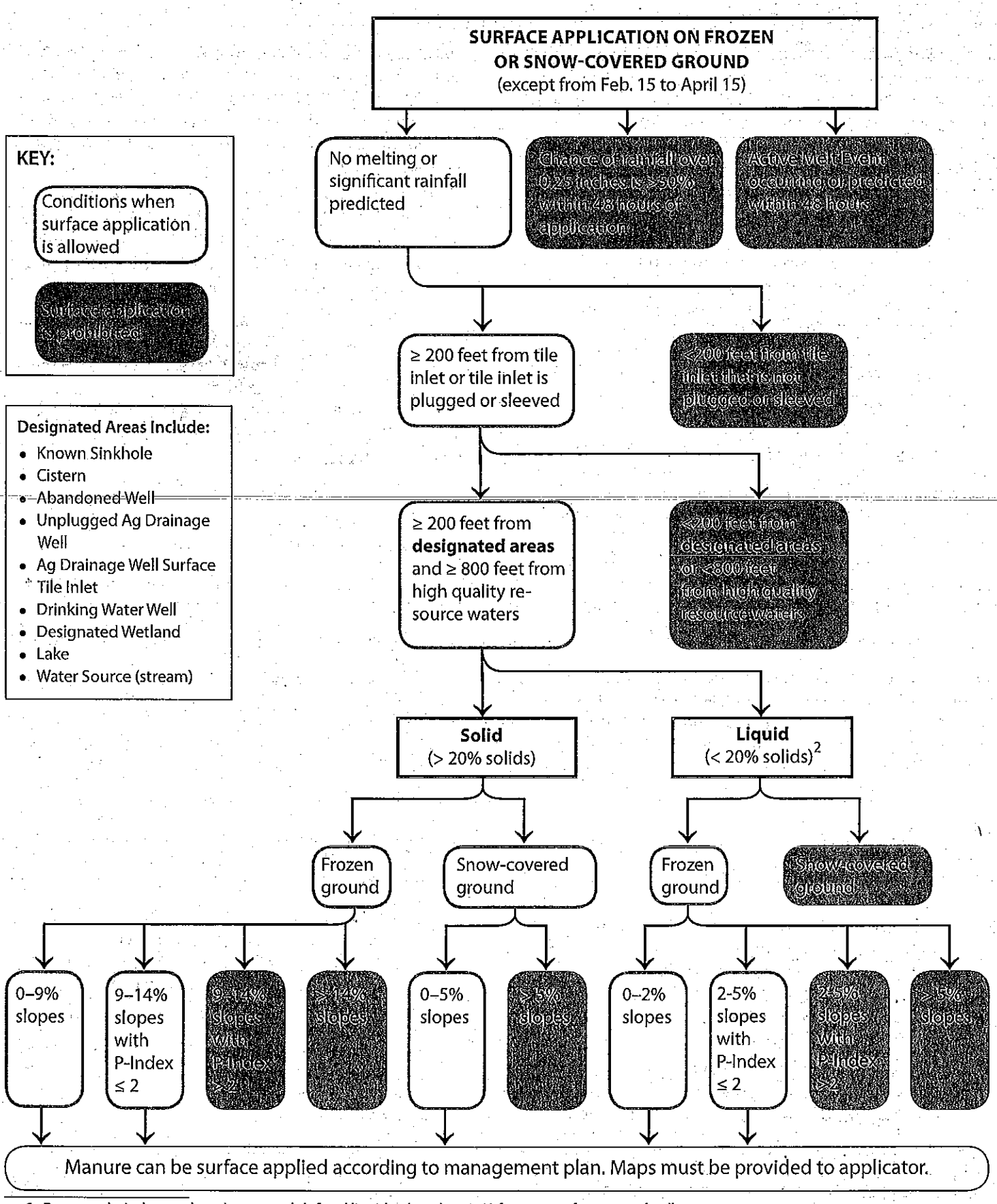
By Steven D. Cook

Contact customer relations at: customercare@bna.com or 1-800-372-1033

ISSN 1521-9402

SURFACE MANURE APPLICATION ON FROZEN OR SNOW-COVERED GROUND

This flow chart will be helpful in determining when and where surface application would be allowable during winter under proposed rules. If approved, the rules would be effective October 2009.



2. Due to a clerical error, the rule proposal defined liquid as less than 15% for manure from open feedlots.

PROPOSED RULE FOR SURFACE APPLICATION OF MANURE ON FROZEN OR SNOW-COVERED GROUND

BACKGROUND

In winter and early spring there is an increased potential for runoff due to snowmelt or rainfall because water is not able to infiltrate soils that are frozen or snow-covered. Surface application of manure under these conditions can lead to lost nutrients and water quality violations. The risk of runoff is higher for liquid manure. However, runoff from fields where solid manure is applied can also contain dissolved nitrogen and phosphorus.

To reduce the potential impact of runoff on Iowa's water resources, the DNR has drafted rules that would prohibit surface application of manure on frozen or snow-covered ground under certain conditions. Surface application would be prohibited when the risk of runoff is highest such as late winter just prior to snowmelt, on steeply sloping ground and in areas near tile intakes. Current rules prohibit surface application of manure near streams, wells and other designated areas.

Farms subject to the proposed rule may have to modify manure application practices or increase the amount of manure storage to comply with the rule, if adopted. The rule would also require producers to develop maps showing areas where surface application would be restricted when the ground is frozen or snow-covered. Please see other side for a detailed flow chart of conditions and areas where restrictions would apply.

TIMELINE

Iowa's Environmental Protection Commission passed a resolution in June 2008 requesting staff to draft a rule addressing winter manure application. The draft rule is now out for public comment until March 27, 2009. If the commission approves the draft rule for final adoption, the rule would become effective Oct. 1, 2009.

RULE BASICS

- The proposed rules DO NOT APPLY if manure can be injected or incorporated within 24 hours after application.
- The proposed rules limit surface application of manure when the ground is frozen or snow-covered to low risk areas and conditions until Feb. 15.
- From Feb. 15 to April 15 surface application is prohibited if the ground is frozen or snow covered.[1]
- The proposed rules apply to all open feedlot and confinement animal feeding operations that are required to have a nutrient or manure management plan (NMP or MMP). Generally, an MMP is required for larger confinement operations. These have more than 500 animal units or the equivalent of 500 beef cattle, 350 mature dairy cows or 1,250 finishing swine. For open feedlots, NMPs are required for lots that have 1,000 or more animal units or 700 mature dairy cows or 1,000 of all other cattle.
- The proposed rules could apply to small operations that cause water quality violations due to application of manure, if enforcement action is initiated.
- Scraped snow and ice from open feedlots are specifically exempted from the proposed rules.
- Frozen ground is defined as ground made impenetrable due to frozen soil moisture. Ephemeral frost, where the ground is frozen in the first 2 inches or less below the surface, is not considered frozen.
- Snow-covered ground is defined as areas with 1 inch or more of snow covering the ground or any area of continuous ice coverage.

PUBLIC COMMENT INVITED

The rules are available online at http://www.iowadnr.gov/afo/newrules.html

People can make oral comments or submit comments in writing at the following public hearings:

- Des Moines, March 16 at 9 a.m.—Wallace State Office Building Auditorium, 502 E. Ninth St.
- Ainsworth, March 16, 6 p.m.—Washington County Conservation Education Center, Marr Park, 2943 Highway 92
- Decham, March 18, 6 p.m.—Decham American Legion (Centennial Center), 302 Main St.
- Calmar, March 20, 1 p.m.—Room 115, Dairy Center, 1527 Highway 150 S.
- Orange City, March 23, 6 p.m.—City Hall, 125 Central Ave. S.E.
- Mason City, March 24, 6 p.m.—Lime Creek Nature Center, 3501 Lime Creek Road

People may also send written comments directly to: Claire Hruby, Iowa DNR, 502 E. Ninth St., Des Moines, IA 50319 or by e-mail to Claire.Hruby@dnr.iowa.gov.

All comments must be submitted by 5 p.m. on March 27.

For more information, call Claire Hruby at (515) 242-6848 or Claire.Hruby@dnr.iowa.gov

1. The DNR proposes an effective date of October 2010 for solid manure from deep-bedded beef operations, allowing surface application from Feb. 15 to April 15 in 2009 if the ground is frozen or snow-covered.

Draft - January 2009, revised February 2009 . Final rule will depend upon public comment and approval by the Environmental Protection Commission

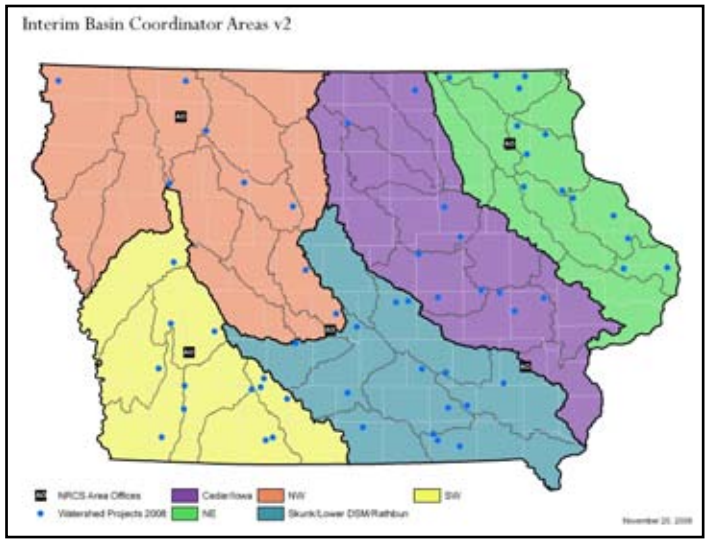
Framework for a Basin Approach to Improving Water Quality

Foundational Premise

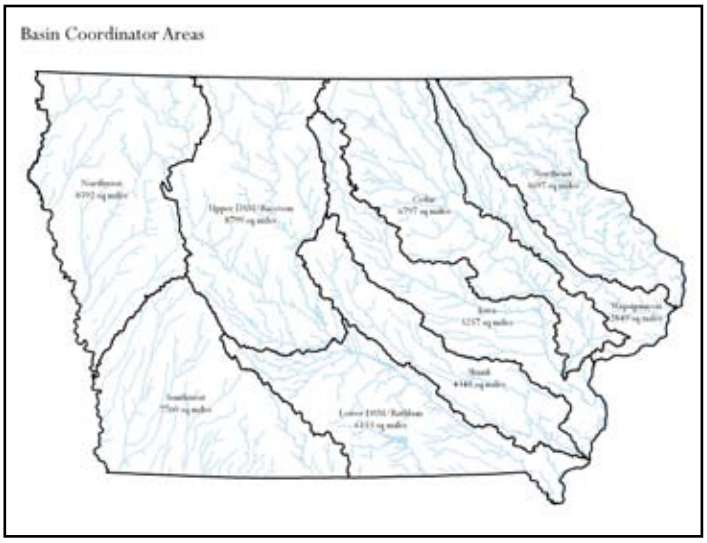
- Watershed and water quality improvement are best achieved using a watershed approach.
- There is a need to target limited resources to the areas of highest water quality priority or concern.
- Measurable improvements in water quality will take years, and even perhaps decades, to achieve.

The Framework

- Initially divide the state into 5 basins/regions, divide into 9 basins when resources allow.
- Assign Basin Coordinators to each basin.
- Subdivide each basin into approximately equivalent sub-basin areas.
- Assign Watershed Coordinators to priority sub-basin areas in each basin.
- Subdivide sub-basin areas into HUC10 and HUC12 watersheds.



Interim 5 Basin Boundaries



9 Basin Plan

Basin Coordinators

- Function as resource managers
- Ensure that WS projects and watershed (project) coordinators have needed resources and support
- Assist with watershed planning
- Coordinate with DNR, IDALS, SWCD, NRCS, and other agencies and groups

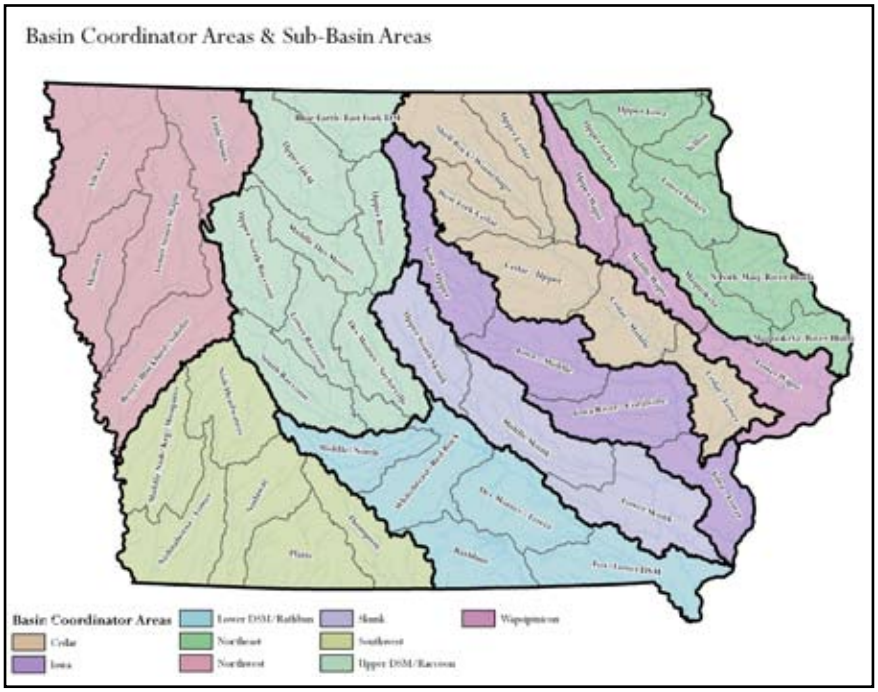
Watershed Coordinators

- Coordinate assessments of priority HUC10s
- Develop comprehensive watershed management plans
- Serve as the watershed advocate
- Coordinate marketing and promoting the local watershed plan
- Develop and implement projects at the HUC12 scale

Benefits

- Reinforces the importance of aligning WQ improvement efforts with watershed boundaries.
- Recognizes the value of regional watershed planning and implementation to achieve measurable WQ improvement goals.
- Allows resources to be focused and targeted to areas of greatest priority or concern.
- Creates an organizational structure that assigns clear responsibility and authority to develop and implement the watershed approach.
- Replicates the Rathbun Lake model for successful watershed planning and implementation.
- Actively engages local and regional stakeholders in developing watershed management plans that reflect the collective values and needs of these groups.

- Retains the need to implement WQ improvement at the local (HUC-12) scale.
- Creates an opportunity for long-term career placement and advancement for watershed and water quality professionals.
- Develops local and regional expertise and professional/technical credibility with local stakeholders.
- Supports the goals and objectives of the Water Resources Coordinating Council legislation (HF2400).



Expanded 9 Basin Boundaries with Sub-Basin Areas

Challenges

- Securing adequate resources ($ and staff) to implement this strategy.
- Addressing the logistics of coordinating activities in basins that cover thousands of square miles.
- Identifying and determining appropriate WQ improvement priorities – where to target.
- Changing the current geo-political framework.

Estimated Resource Needs

- Basin Staff
  - 4 additional Basin Coordinators ($500k)
- Watershed Staff
  - 45 WS (project) coordinators (already funded)
  - 7 year cycle = 2 year planning + 5 year project implementation (approx.)
  - Need to fund planning phase between projects ($1.3M)

Potential Funding Sources

- CWA 319 / WSPF / WPF — primary funding sources now
- WIRB — Would require changes to legislation
- NRCS — In kind (currently)
- New Appropriation
- Other?

Current DNR Contributions

- Funding 2.5 FTEs for Basin Coordinators (CWA 319)
- Partial funding for watershed coordinators
- Water quality data collection and analysis by the water monitoring section
- Each basin will have representation from field staff (Biologists, ESD, Parks, etc.) and central office staff (GIS, NPDES, Floodplains, Realty Services, etc.)

Next Steps

- Secure support for framework
- Finalize strategy
- Implement interim plan
- Secure additional funds
- Expand plan
- Others?

Overview of Mercury Emissions Monitoring

Environmental Protection Commission Meeting

February 17, 2009

Presentation Overview

- Measurement Terminology
- Measurement Methods
- Hg Continuous Emissions Monitors (CEMS)
- Issues with Hg CEMS
- Proposed Hg Monitoring Requirements
- Possible Data Uses/Concerns
- Questions and Contact Info

Measurement Terminology

- **NIST (N**ational **I**nstitute of **S**tandards and **T**echnology) **Traceable**: A standard that has an unbreakable chain of comparisons to a NIST reference standard.
- **CEMS (C**ontinuous **E**missions **M**onitoring **S**ystem): The entire system used to collect emissions data on a continuous basis. Includes the data acquisition and handling system (DAHS)

Measurement Terminology

- **RATA** (**R**elative **A**ccuracy **T**est **A**udit): Annual CEMS check to ensure it is reading correctly. Monitor outputs are compared to reference method test results. They must agree within 20%.
- **Span**: The maximum upper limit of the monitor's measurement range. This is required to be twice the applicable limit.
- **Drift**: The difference in the CEMS response to a reference gas.

Measurement Terminology

- **Calibrations:** Daily checks to ensure the monitor is still reading within the required specifications. Monitors are challenged with a zero gas (no pollutant) and a mid level gas (40%-60% of the span).
- **Sorbent Trap***:* a cartridge or sleeve containing a sorbent media (typically activated carbon treated with iodine or some other halogen) with multiple sections separated by an inert material such as glass wool.

Measurement Terminology

- **Atomic Absorption Spectrophotometry (AAS)**: Analytical method used to determine the concentration of mercury in a sample. The atoms in the ground state absorb the light of a distinctive wavelength passing through an atomic vapor layer of the element.

Measurement Methods

- **Method 101:** Particulate and gaseous Hg emissions are withdrawn from the source and collected in acidic iodine monochloride (ICl) solution. The Hg collected is then aerated from the solution into an optical cell and measured by atomic absorption spectrophotometry .

Measurement Methods

- **Method 29:** Particulate and gaseous Hg emissions are withdrawn from the source and collected in acidic hydrogen peroxide and potassium promangente solutions. The samples are digested and the Hg is measured by cold vapor AAS.

Measurement Methods

- **Method 30B:** Known volumes of flue gas are drawn through paired, in stack sorbent traps at an appropriate flow rate. The sorbent traps are recovered from the sampling system and analyzed by any suitable technique that meets the performance criteria.
- **ASTM Method D6784-02 (Ontario Hydro Method):** Much the same as Method 29 with an additional potassium chloride impinger for oxidized species.

Hg CEMS

- Most common analysis is AAS or small variations of it
- Generally a CEMS system must analyze a sample one every 15 minutes. Most sample much more than this
- Raw CEMS data is sent to the DAHS where it is reduced to the units of the standard and stored
- Upscale Drift < 5% of span
- Zero Drift <5% of span
- Relative Accuracy of $\leq$ 20% of reference method or 10% of limit whichever is greater

Issues with Hg CEMS

- Inconsistent readings
- EPA's Environmental Technology Verification (ETV) program shows high long term variability
- Bi weekly RATAs show a difference of 10 to 50% in RA values. Some of this may be due to low levels monitored. 100 ug/dscm elemental Hg = 0.01 ppm
- Currently have some monitors that would meet the proposed certification requirements, but no long term performance data are available

Proposed Hg Monitoring Requirements

- Affected EGUs with no Hg specific controls:
  - Quarterly coal sampling for Hg
    - ASTM D2234-76 or any future ASTM amendment approved by Department
  - OR
  - Quarterly stack testing for Hg using one of the following federal reference methods:
    - 40 CFR 60 Appendix A Methods 29, 30A, 30B
    - 40 CFR 61 Appendix B Method 101
    - ASTM Method D6784-02 (Ontario Hydro method)

Proposed Hg Monitoring Requirements

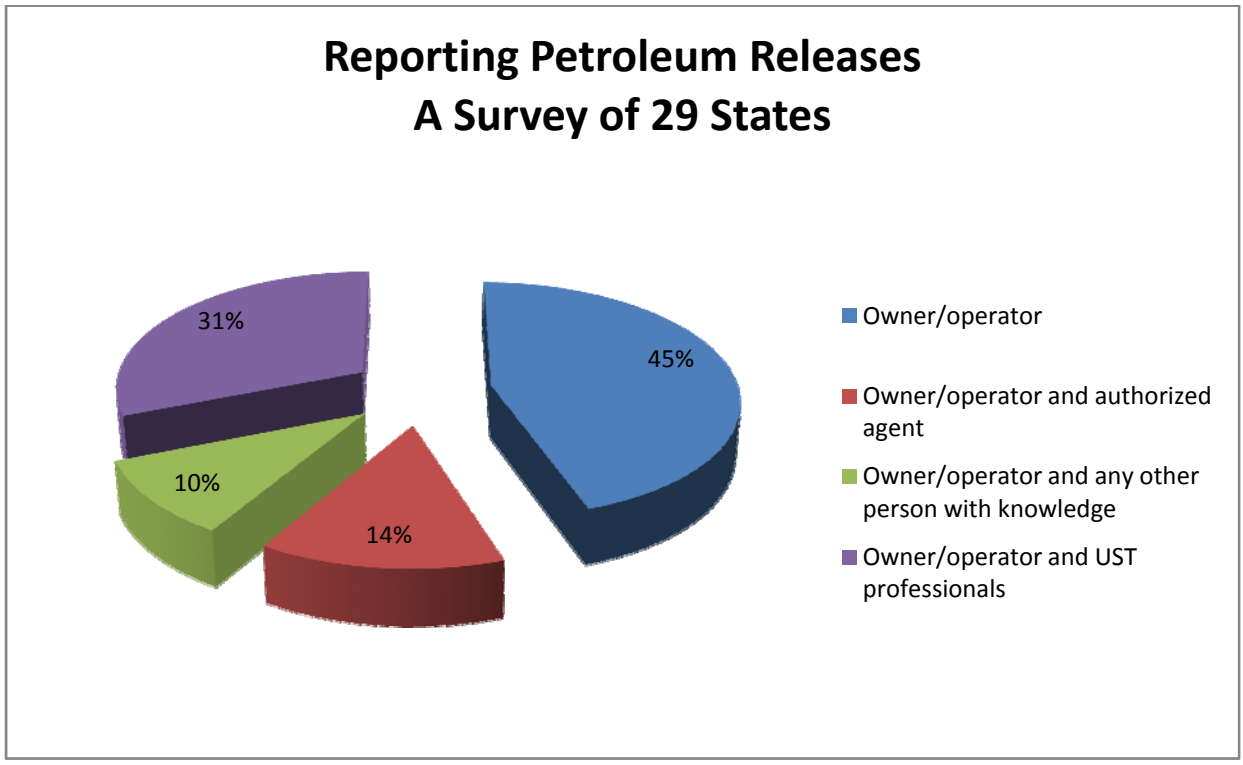
- Affected EGUs with Hg specific controls:
  - Complete at least one coal sample analysis using approved methods concurrently with at least one quarterly stack test using acceptable federal reference methods
- Affected EGUs would not be required to continue to operate and collect data from the Hg CEMS

Possible Data Uses/Concerns

- Uses:
  - 112(g) determinations for new units
  - Support for Hg inventory and modeling activities
  - Data for use in development of new Hg monitoring regulations at the federal level
- Concerns
  - Data quality
  - Data representativeness
  - Data validity

Questions and Contact Info

- Questions?
- Contact Info
  - Mark Stone
  - 515-242-6001
  - mark.stone@dnr.iowa.gov


Reporting Petroleum Releases
A Survey of 29 States
31%
45%
10%
14%
Owner/operator
Owner/operator and authorized agent
Owner/operator and any other person with knowledge
Owner/operator and UST professionals

Fiscal Impact Statement

Associated with the

Notice of Intended Action

Stream Use Designation Revisions
Rule 567 IAC 61.3(5)

Prepared by the

Department of Natural Resources

January 15, 2009

Fiscal Impact Statement

Introduction: This Fiscal Impact Statement (FIS) provides the projected costs and potential benefits associated with the proposed adoption of the stream use designation revisions by reference at rule 567 IAC 61.3(5). The Department has been performing aquatic life and recreational use assessments on Iowa's rivers and streams since September of 2005 in order to determine the highest attainable use for an identified stream segment.

The need to perform use assessment and use attainability analyses (UA/UAA) arises from changes to Iowa's water quality standards which became effective on March 22, 2006. One of these changes was the amendment of rule 61.3(1) which designated all of Iowa's perennial rivers and streams and intermittent streams with perennial pools as Class A1 Primary Contact Recreational Use and Class B(WW-1) – Type 1 aquatic life use. The rule further provides that designated uses of segments may change based on a use assessment and use attainability analysis.

Pursuant to section 455B.176A, the redesignation of streams through the amendment of rule 61.3(1)"b" cannot be implemented through new or revised NPDES permit limits until a UA/UAA has been performed for an affected stream.

The department has previously provided a FIS for the March 22, 2006 rules addressing the likely costs of the expected ammonia-nitrogen removal and disinfection requirements. The assumptions and evaluations made in the August 16, 2005 FIS remain relatively unchanged as the recommendations from the UA/UAAs support the assumptions made at that time. Therefore, this FIS for the proposed stream designation revisions will defer to the August 16, 2005 FIS which is available at the department's web site at http://www.iowadnr.com/water/standards/rulemaking.html

It is important to note that department staff did not evaluate the specific individual impacts or treatment needs for each wastewater treatment facility noted in the August 16, 2005 FIS. Basic assumptions and evaluations were made on the general impacts on all facilities predicted to be affected. The specific individual impacts and needs will be best evaluated by the facility's staff or retained consultant. Innovative or unique treatment methods may be available to some facilities thereby reducing specific costs.

Rebuttable Presumption

Rule 567-61.3(1)“b”, effective March 22, 2006, designated all perennial rivers and streams or intermittent streams with perennial pools in Iowa as Class A1 and all of the same streams not specifically listed in the Surface Water Classification as Class B(WW-1) waters, to protect these waters for recreational and aquatic life uses. The adoption of this provision added approximately 10,000 to 14,000 miles of newly designated streams, including stream segments downstream of all continuously discharging wastewater treatment facilities. The numerical criteria associated with both of these designations applied at all specified stream flow regimes, including the critical stream low flows ($1Q_{10}$, $7Q_{10,}$ and $30Q_{10}$). Since most of these stream segments will have critical low flows of zero cfs, this implies that the allowed amount or concentration of key materials that could be assimilated in the designated stream reach would be very near or equal to the numerical criteria. Thus, for wastewater treatment facilities, this would reduce the amount of treated pollutants that would be allowed in their discharge and result in the need to provide additional treatment of key parameters, particularly ammonia nitrogen and bacteria.

Pursuant to section 455B.176A, the redesignation of streams through the amendment of rule 61.3(1)“b” cannot be implemented through new or revised permit limits until a use attainability analysis has been performed for an effected stream.

It should be noted that the fiscal impact estimates are not solely based on designating all perennial rivers and streams or intermittent streams with perennial pools in Iowa as Class A1 and all of the same streams not specifically listed in the Surface Water Classification as Class B(WW-1) waters. The estimates also consider the results of the Use Assessments/Use Attainability Analyses (UA/UAA) that were conducted on these waters to determine the most appropriate use designation. However, the Department anticipated that some form of Class B aquatic life use designation and Class A recreational use would remain for most of these streams after these UA/UAAs were complete which is holding true. The impact of this proposed rule is realized through establishing the appropriate aquatic life and recreational use designations for Iowa’s perennial rivers and streams or intermittent streams with perennial pools based on guidance from EPA, not necessarily the establishment of a rebuttable presumption of uses for Iowa’s waters.

A. Impacted Facilities: Statewide, originally 334 wastewater treatment facilities (210 municipal, 114 semi-public, 10 industrial) were anticipated to be impacted through the implementation of more stringent effluent ammonia-nitrogen and bacteria limits. The number of impacted facilities has increased to some extent due to new facilities, facilities missed in the original screening of impacted facilities, and a refined interpretation of what facilities may be impacted. While the number of impacted facilities has grown it is not expected to dramatically change the previously calculated fiscal impact from August 16, 2005.

The treated effluent from these continuously discharging facilities currently enter General Use (non-designated) watercourses ranging from channelized ditches to meandering waterways. All of these watercourses were found not to meet the current definitions for designated uses. Under the 3/22/2006 rule change, these watercourses became designated as Class A1 and Class B(WW-1) waters.

It should be noted that some facilities do not possess significant ammonia-nitrogen concentrations in their wastewater and may not be affected by this new rule. However, there could be other parameters that may be water quality-limited. These non-traditional water quality-limited parameters could include toxics, toxic metals, or dissolved solids for which facility specific treatment techniques may be required. No economic projections are made of the non-traditional water quality-limited parameters.

B. Projected Costs: With the proposed designation of stream segments under the rebuttable presumption provision, it is anticipated that these designated streams will possess critical stream low flows ($1Q_{10}$, $7Q_{10}$, and $30Q_{10}$) of 0.0 cfs. Therefore, little assimilative capacity will be available in the stream for mixing that would provide for more relaxed ammonia-nitrogen effluent limitations.

Nitrification Costs: Achieving compliance for the original 334 facilities would require a nitrification treatment process similar to an extended aeration activated sludge wastewater treatment facility because conventional secondary wastewater treatment units will not be able to meet end-of-pipe ammonia-nitrogen water quality-based effluent limits. The nitrification units may include oxidation ditch-type and other various designs of extended aeration activated sludge wastewater treatment processes that are costly to build and operate. It is assumed that aerated lagoon and trickling filter facilities will upgrade to these types of nitrification facilities to comply with anticipated ammonia limits. In addition, it is assumed that any activated sludge facility may need to upgrade or possibly change its current operation to provide for extended aeration to remove ammonia-nitrogen, resulting in higher operation and maintenance costs and possibly reduced design capacity.

The fiscal impact assessment has attempted to establish a range of costs that considers both higher cost and lower cost scenarios. The established range incorporates conservative approaches to estimating the potential fiscal impact. It is understood that a multitude of factors or variables may result in estimates that are either below the lower cost estimates or exceed the higher cost estimates and were not considered due to the difficulty of predicting which variables could apply to any facility.

Disinfection Costs: For each of the 334 facilities, the proposed rule change would require each facility to meet effluent bacteria levels equal to the Water Quality Standard's numerical bacteria criteria. As specified in existing rule, all bacteria criteria are end-of pipe limits with no provision for mixing with critical low stream flows. It is assumed that the existing wastewater treatment or even after operation of nitrification unit processes would not comply with the stringent bacteria criteria without additional treatment. Thus, each facility would need to install effluent disinfection equipment. Since the most widely used treatment technique for disinfection is chlorination, the economic estimates are based on the construction and O&M costs for chlorination equipment. While chlorine is a very effective disinfection agent, it is also a very toxic residual to the receiving stream's aquatic life. Therefore, dechlorination equipment costs were included in the cost estimates. The overall disinfection costs have been generalized to uniformly cost $150,000 per facility.

Other alternative disinfection treatment options are available to wastewater treatment facilities. However, their costs are traditionally greater than chlorination and dechlorination. Each facility's managing authority will need to select the type of unit process, with cost being one of the factors. There are no higher cost or lower cost options for disinfection equipment. However, disinfection costs may not be applicable for some types of implementation alternatives (such as land application) that do not discharge to a receiving stream. The appropriateness and applicability of these alterative options are best left to the facility's managing authority and are not integrated into any of the economic estimates.

C. Anticipated Benefits:
The anticipated benefits from the adoption of the stream designation revisions are also associated with the potential improvements to: instream conditions for aquatic and semiaquatic life, wildlife, and livestock watering needs, and aesthetic conditions. These potential benefits do not have readily identifiable monetary value and are not estimated in this impact statement.

Summary

The projected fiscal impact to municipal, industrial and semipublic wastewater treatment facilities from the 2006 rule-making in regard to the application of recreational use and aquatic life protections was projected to be approximately between $790 million to $956 million. **This fiscal impact estimate is relatively unaffected by the current proposed adoption of the stream use designation revisions as the assumptions and generalization used in the August 16, 2005 FIS are holding true.**

The following table summarizes the total impact of the March 22, 2006 rule. It's important to note that none of these costs will be realized until the stream designation revisions are effective and each affected facility receives a renewed NPDES permit detailing the new discharge requirements.

Table 1
Fiscal Impact Summary

Rule-making Topic	Number of Affected Facilities	Projected Fiscal Impact		
		Nitrification	Disinfection/ Dechlorination	Total
Higher Cost Scenario				
1) General Use Definition Changes*	*	*	*	*
2) Class B(WW-1, 2, & 3) Modification	N/A	N/A	N/A	N/A
3) Protected Flow	63**	**$177,946,000**	N/A	**$177,946,000**
4) Rebuttable Presumption*	334	**$716,583,000**	**$50,100,000**	**$766,683,000**
5) Add Class A-1 to all Class B(LR)	14 + 63**	N/A	**$11,550,000**	**$11,550,000**
Totals	**411**	**$894,529,000**	**$61,650,000**	**$955,879,000**
Lower Cost Scenario				
1) General Use Definition Changes*	*	*	*	*
2) Class B(WW-1, 2, & 3) Modification	N/A	N/A	N/A	N/A
3) Protected Flow	36***	**$134,011,000**	**N/A**	**$134,011,000**
4) Rebuttable Presumption*	246	**$594,605,000**	**$50,100,000**	**$644,705,000**
5) Add Class A-1 to all Class B(LR)	14 + 63***	**N/A**	**$11,550,000**	**$11,550,000**
Totals	**323**	**$728,616,000**	**$61,650,000**	**$790,266,000**
	Range	**$790,266,000 to $955,879,000**		

* Impacts of Topic 1 are included in Topic 4.
** Same facilities, but having separate costs due to different topics.
***36 facilities are part of the 63. Less facilities are affected by nitrification in the lower cost scenario. However, all 63 are still impacted by disinfection in the lower cost scenario.

Anticipated Implementation Approach: The Department clearly recognizes that the implementation of these proposed rules and rule changes will have far-reaching economic impacts. Historically, compliance with the provisions of the federal Clean Water Act has carried a significant price tag and will continue to be costly as requirements and guidelines are reaffirmed. It is the goal of the Department to implement these proposed rules in a reasonable, practicable, and responsible manner. Thus, the implementation will be linked to the reissuance of each facility's NPDES permit. All available NPDES provisions and considerations will be made to allow adequate time for each facility to comply with the adopted rules according to their time constraints, economic abilities, and

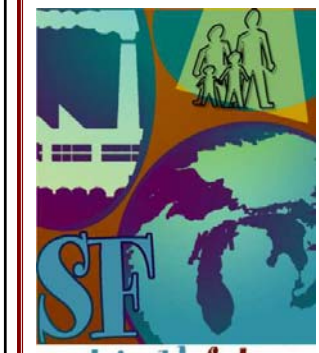
source of financial aid. The State Revolving Fund (state administered low-interest loan program) will be available to assist in the eligible construction of the required facilities. If needed, additional fund monies will be sought to assure adequate loan funding.

Responding to Climate Change: The ICCAC Report

Jerry Schnoor
Dept of Civil & Environmental Engineering
Center Global & Regional Environ Research
THE UNIVERSITY OF IOWA

IA Environmental Protection Commission
IDNR Air Quality Building

February 17, 2009



Iowa General Assembly S.F. 485 (2007) and H.F. 2571 (2008) and the Iowa Code Section 455B.851

ICCAC Scenarios for GHG Reductions in Iowa:

-- 50% and 90% reductions by 2050 from baseline (2005)

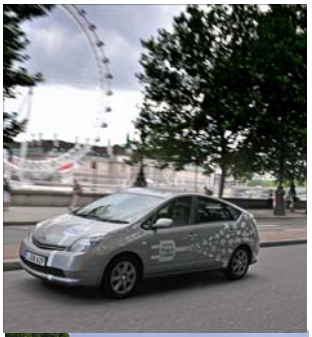
Interim Years: By 2012, a 1-3% reduction needed

By 2020, a 11-22% reduction needed

Policy Options: 56 Options evaluated based on their potential for GHG reductions and their cost

Website: www.iaclimatechange.us

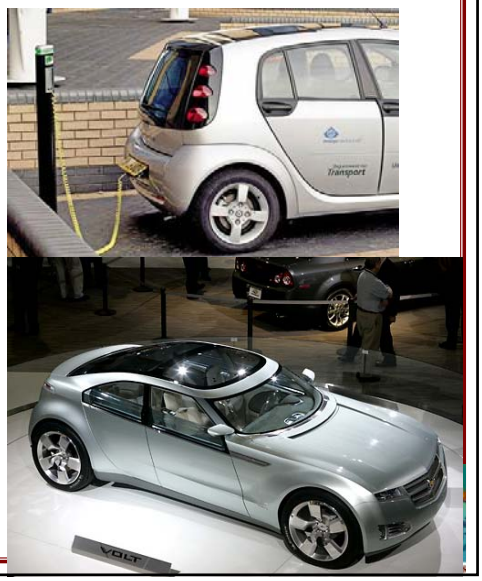
GHG Reduction Strategies: An enormous economic opportunity



- Low Hanging Fruit:
  - Buildings (40% of GHGs)
  - Energy Efficiency/Conserve
- Transportation (25% GHGs):
  - Gas mileages >100 mi/gal
  - Fuel efficient, low carbon emitting vehicles
    - Gas-electric hybrids
    - Plug-in hybrids
    - Flex-fuel plug-in hybrids
    - Fuel cell cars (?)

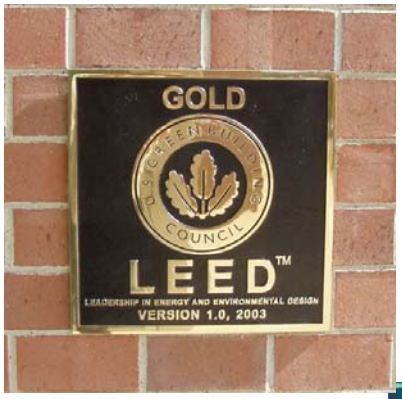
Plug-in Electric Hybrid Vehicles

- Advantages
  - Use wind power at night to recharge the battery at a cost of < $1/gal (thus making wind storable in 200 million car batteries)
  - 50-100 mpg depending on your ratio of commuting to long-haul; See GM Volt
- Disadvantages
  - More expensive cars
  - Recharging stations; time-to-recharge; range; lithium ion batteries



Leadership in Energy Efficiency Buildings

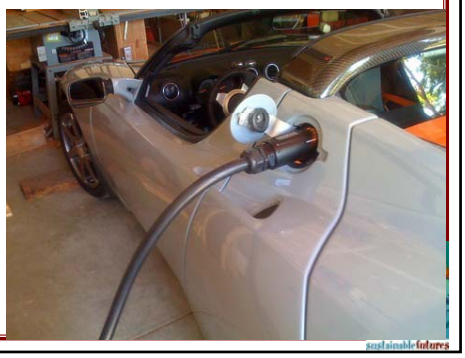
- GHG emissions associated with our buildings is 40% of total
- Change out our capital stocks
  - Cars (8-10 yrs)
  - Wind Power (2-5 yrs)
  - Power plants (50 yrs +)
  - Buildings (50-75 yrs)
- LEED certification is run by the U.S. Green Building Council, and there are other alternatives



Renewable Energy: Solar PV Homes

- Solar homes can be fitted with racks of PV cells on the roof
- SUNSLATES roofing tiles by Atlantis Energy with AstroPower PV modules (a 5 kW system with battery backup and linked to the local utility)
- 1,000,000 homes in California and Japan are doing it!

Solar PV Home and Electric Car in California

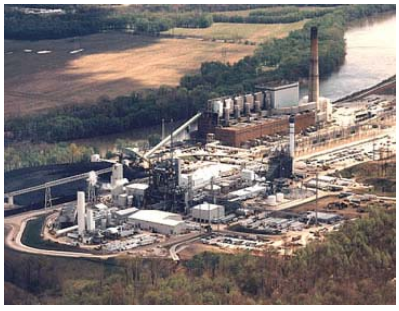


Iowa Wind Power

- Iowa is now 2nd in the U.S. in nameplate capacity wind
  - It's cost competitive $0.05 cents/Kwh
  - Iowa has 2790 MW so far, (10-15% of total)
  - Green collar jobs (1000s) at wind turbine mfgs.
- Enjoys federal production tax credit
- Wind power is clean and renewable, but we need to find a method to store it

Carbon Capture at power plants and Storage is required if coal is to be used for electricity

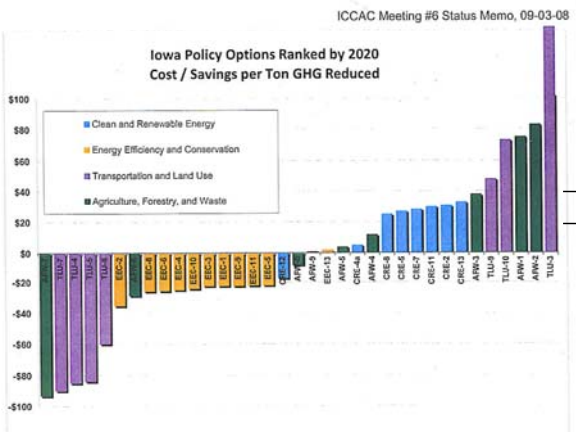
- Coal-fired power plants emit almost twice the GHGs as other forms of electrical generation
- Integrated Gasification and Combined Cycle (IGCC)
  - Gasification of the coal to make a gaseous fuel stream that burns cleaner than the coal itself
- Combined cycle is more efficient that normal coal-fired power plant (32% thermal efficiency)
- IGCC plants are considered to be "carbon capture ready"



Carbon Sequestration/Storage in deep geologic formations is commonly practiced for secondary recovery in oil fields

- Oil companies have been practicing carbon sequestration for decades
- Rich CO2 streams from petroleum fields are pumped back into the formation to recover more oil and gas
- Pipelines are used to transport the gas and to sequester it below 3500 ft as supercritical CO2 (like a liquid at gas/liquid density)
- Illinois has deep coal beds that could be used for this purpose

Iowa Climate Change Advisory Council Policy Options -- Cost per ton (CO_2eq) reduction



→ High cost

→ Moderate cost

Some energy efficiency/conservation policy options

Options	Cost per ton CO_2 saved or avoided	GHG Reduction by 2020 ($MMtCO_2eq$)*
EEC-2 and 12 Demand side programs for gas and electricity	- $28 (avg)	5.6
EEC-3 and 5 Financial incentives to efficiency	- $21	9.4
EEC-9 MWGA Energy Security and Climate Stewardship Platform	- $22	4.1

*GHG reductions not adjusted for overlapping policies; total for the EEC sector is 8.6 MMtCO2e

Some promising policy options that create jobs and/or improve agricultural profitability

Options	Cost per ton CO_2 saved or avoided	GHG Reduction by 2020 ($MMtCO_2eq$)*
CRE-2 Technology 60% wind, 20% biomass, 20% fuel cell	+ $29	33
AFW-3 Ag Biomass (1 MM acres) for heat, elect., steam (chp)	+ $38	20
CRE-5 Performance stds. 40% wind, 20% bio, 20% solar, 20% nuclear	+ $7	11
AFW-5 No-till and soil carbon sequestration	~ $0	9

Some other promising policy options

Options	Cost per ton CO_2 saved or avoided	GHG Reduction by 2020 ($MMtCO_2eq$)*
CRE-4 Decarbonization fund from carbon tax (e.g., wind)	+ $4	11
AFW-6 Cellulosic biofuels (perennials)	- $29*	9.8

*Costs/savings of AFW-6 include a $1.01/gal federal subsidy for cellulosic ethanol

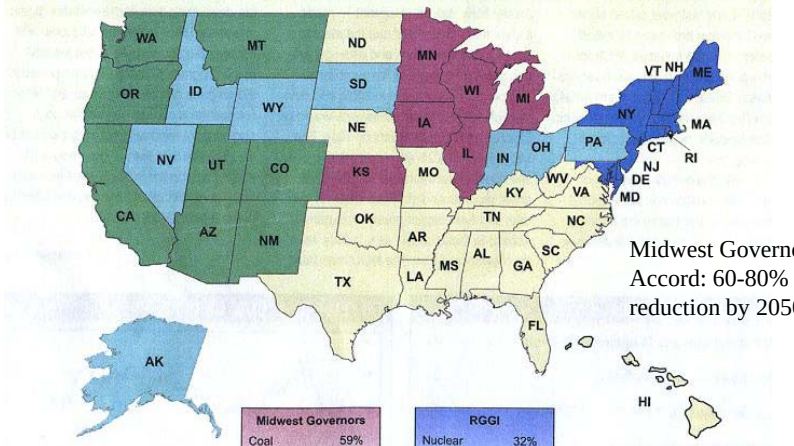
Some really cost-effective policy options

Options	Cost per ton CO_2 saved or avoided	GHG Reduction by 2020 ($MMtCO_2eq$)*
AFW-7 On-farm efficiency	- $90 (approx.)	1
TLU-7 Fuel efficient operations for cars	- $90	0.65
TLU-1 Smart growth bundle w/ transit	-$245	0.242

Some controversial policy options

Options	Cost per ton CO_2 saved or avoided	GHG Reduction by 2020 ($MMtCO_2eq$)*
CRE-7 Nuclear Power (maintain + 1 new plant by 2020)	+ $27.6	9.7
TLU-10 Low Carbon Fuel Standard (like CA)	-$62	5.1
TLU-4 Support Iowa passenger rail service	+$597	0.008

Regional Cap-and-trade Programs, Observer States and Generating Fleets



Midwest Governor's Accord: 60-80% reduction by 2050

Source: EIA

WCI	
Hydroelectric	32%
Natural Gas	28%
Coal	23%
Nuclear	11%
Renewables	5%

Midwest Governors	
Coal	59%
Nuclear	32%
Natural Gas	6%
Renewables	2%
Hydroelectric	1%

RGGI	
Nuclear	32%
Natural Gas	29%
Coal	22%
Hydroelectric	10%
Petroleum	3%

Observers	
Coal	71%
Nuclear	14%
Natural Gas	9%
Hydroelectric	4%
Renewables	1%

Note: Regional GHG programs include Canadian provinces and a Mexican state not shown here due to different data gathering standards. Percentages are based on total MWh generated in 2006, according to EIA data.

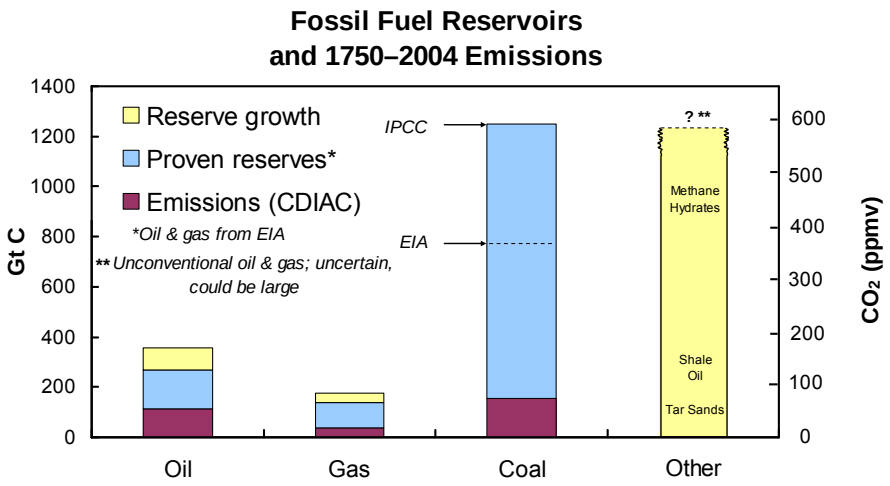
Summary

- There exists an enormous economic opportunity to respond to climate change by relying on energy conservation and efficiency, renewable energy sources, and smart policy options
- ICCAC suggests options for state government to consider between now and 2020 which could provide:
  - An economic engine for growth and job creation over the next decade
  - Greater energy independence and security
  - A cleaner, healthier environment
  - Iowa's contribution to a more stable global atmosphere and climate future
- Iowa is already a leader and could be so much more

S U S T _ _ N _ B _ E

F U T U _ E

The Fossil Fuel Age: burning millions of years of stored carbon

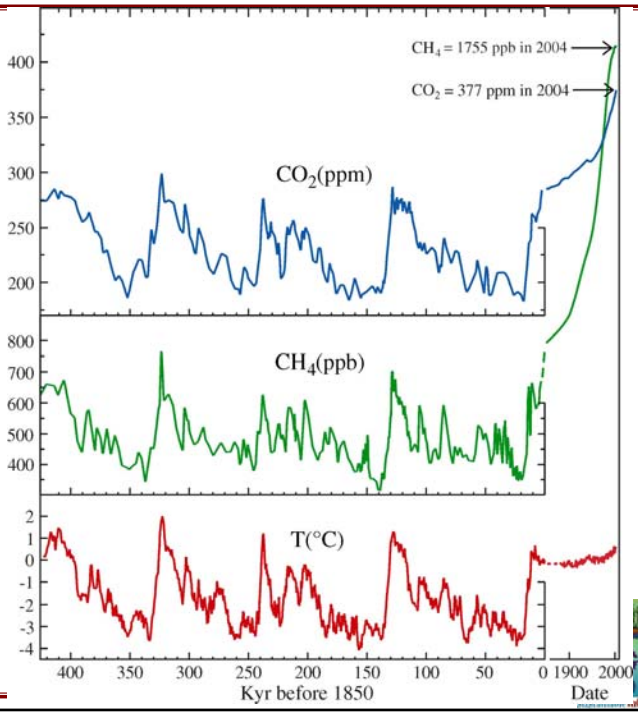


Slide courtesy of James Hansen, NASA GISS

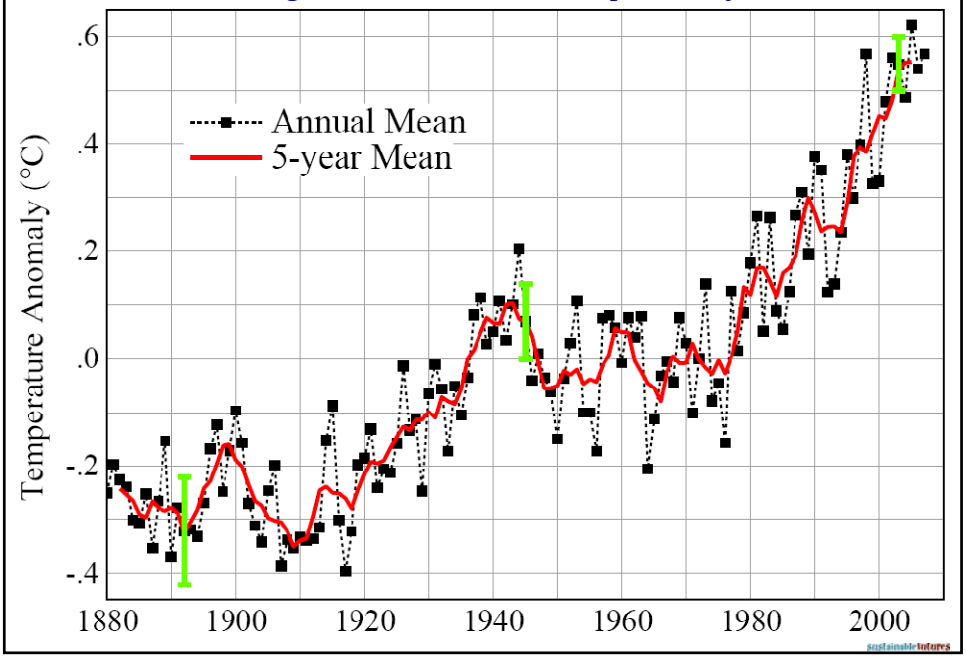
Current GHGs are unprece-dented for over 600 K years

CO_2,CH_4 and estimated global temperature (Antarctic ΔT/2 in ice core era) 0 = 1880-1899 mean.

Source: Hansen, *Clim. Change*, **68**, 269, 2005.

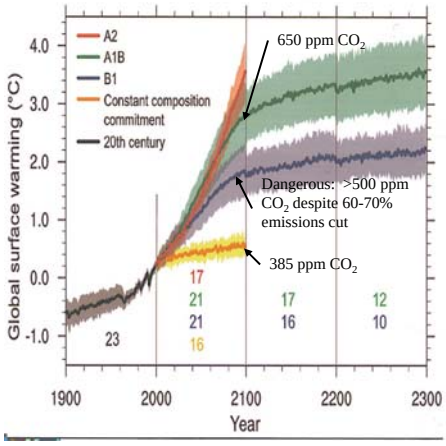


Climate Change – 0.8 C warmer in the past 130 yrs



GCM models agree on future warming (IPCC)

- Models agree on + (2.0-4.5) ºC (3.6-8.1 ºF) w/in 100 yrs in IPCC 4th Assessment (2007)
- Best estimate is 3 ºC warmer (5.4 ºF) by 2100
- 0.6 ºC (1.1 ºF)more warming is inevitable, but if we act within 10 years or so, we can stop dangerous climate interference (Hansen et al., 2006)



Tipping Points

- One of the reasons that we must act now is to avoid nonlinearities, tipping points into a new climate domain
  - Storm severity
  - Loss of ice-sheets
  - Sea level rise
  - Species extinctions
  - Reversal of North Atlantic thermohaline circulation
  - Release of clathrate methane, CO_2 from deep ocean

GHG Policy Options Reduction Potentials

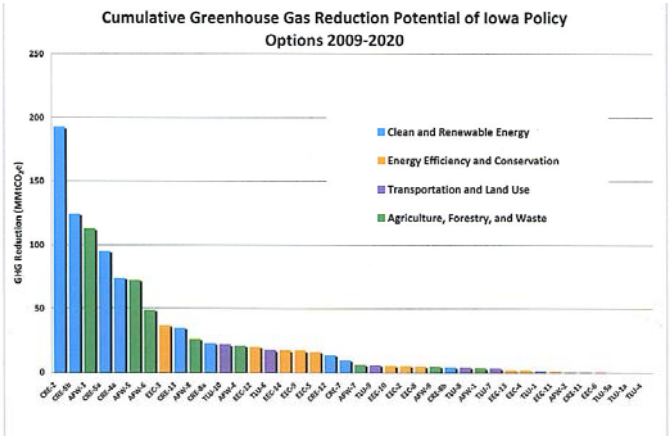
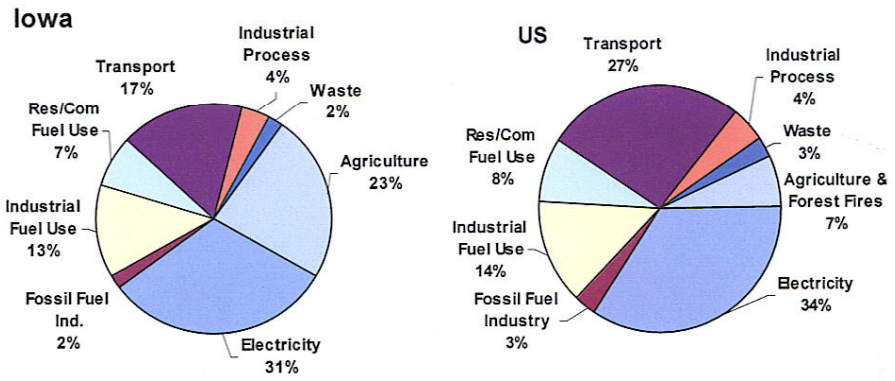


Figure ES-2. Gross GHG emissions by sector, 2005: Iowa and U.S.



Iowa GHG Emissions Trends and Forecast

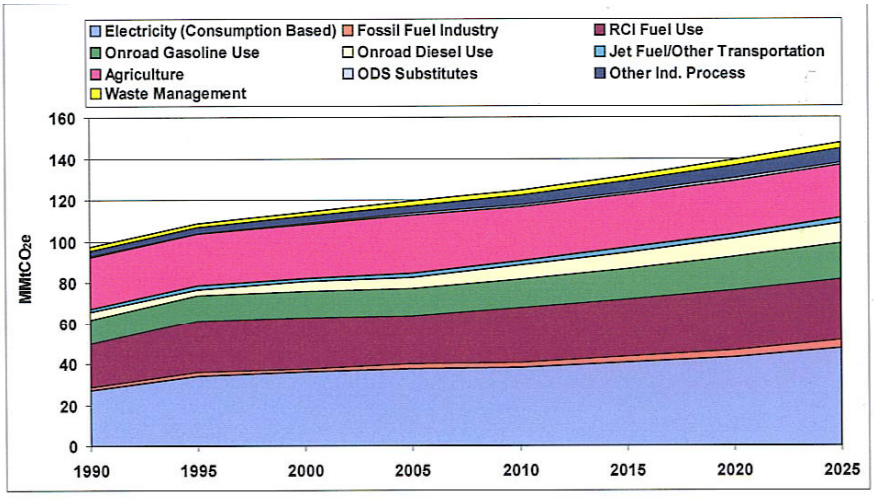
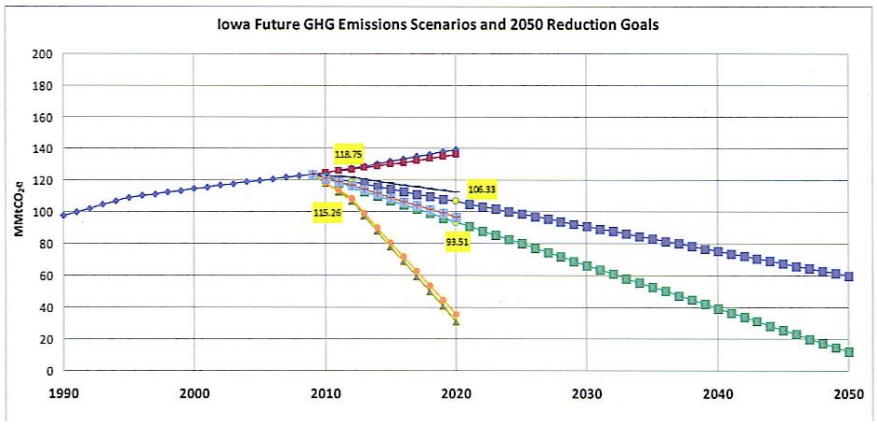
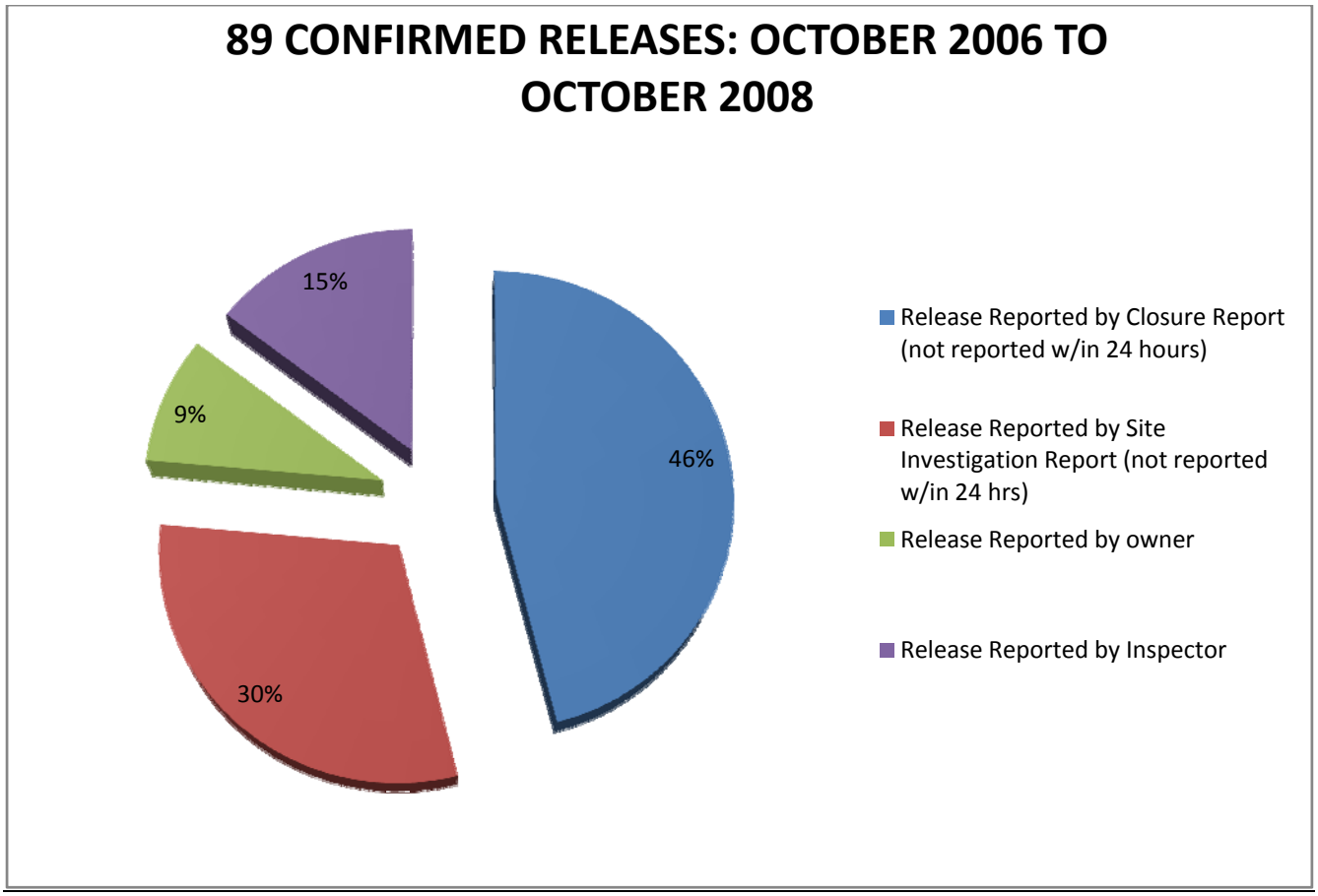


Figure ES-7. Iowa Future GHG Emissions Scenarios and 2050 Reduction Goals




89 CONFIRMED RELEASES: OCTOBER 2006 TO OCTOBER 2008
15%
9%
46%
30%
Release Reported by Closure Report (not reported w/in 24 hours)
Release Reported by Site Investigation Report (not reported w/in 24 hrs)
Release Reported by owner
Release Reported by Inspector